

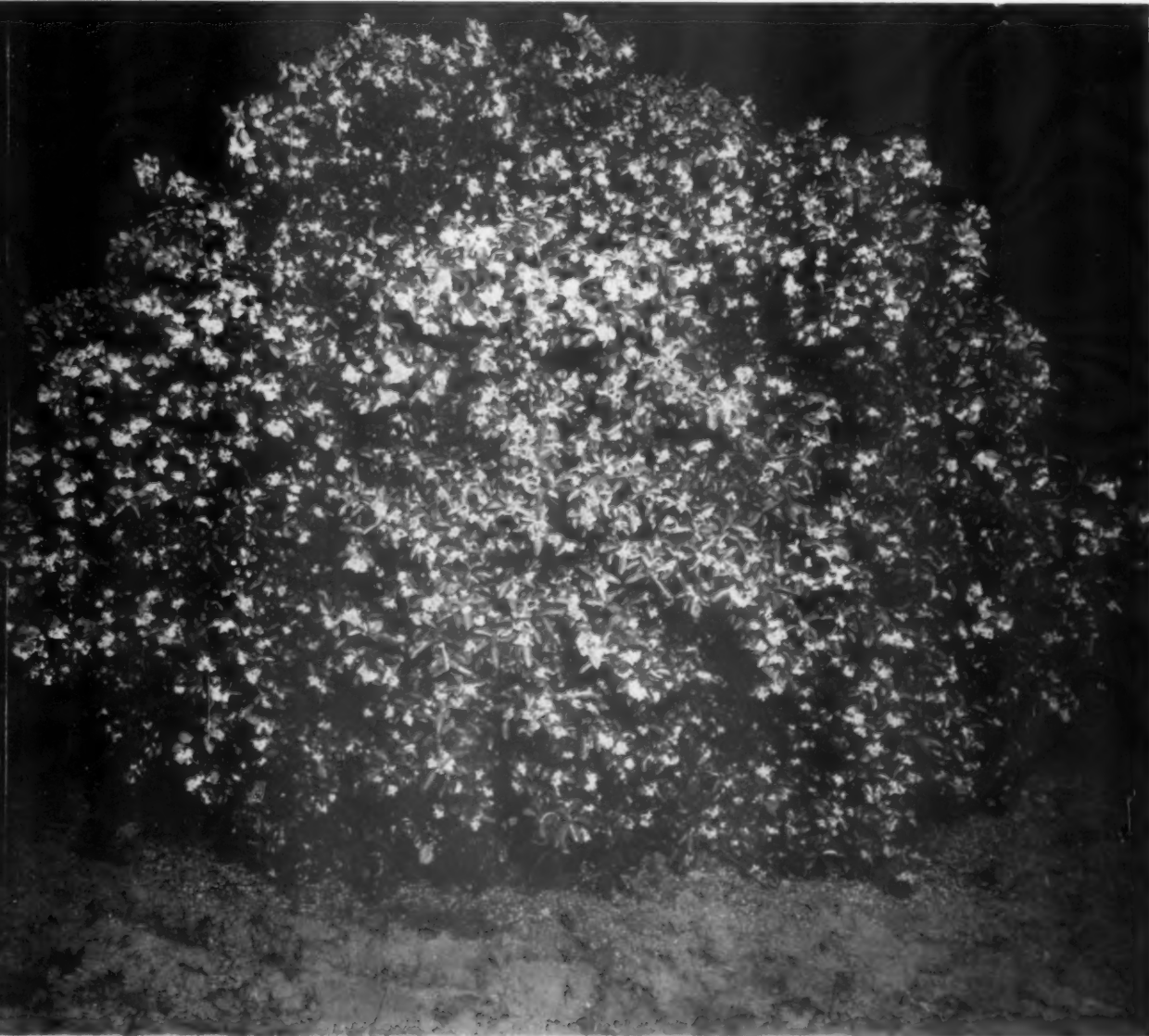
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AMERICAN BEE JOURNAL



NOVEMBER 1939

MOVING BEES WITHOUT
SCREENS—LEE H. WATKINS

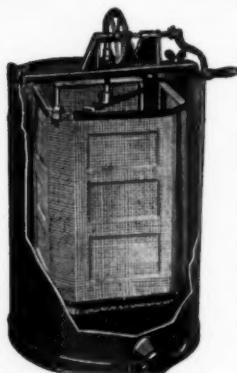
PERSIAN ESPARCETTE
—EDWARD KELLNER

THE ORANGE AND THE BEE
—ROBERT E. FOSTER

HONEY GETTING—ECONOMICS
—E. L. SECHRIST

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AMERICAN BEE JOURNAL

The Oldest Bee Journal in the English Language

ESTABLISHED BY SAMUEL WAGNER IN 1861

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CONTENTS

MONTH OF NOVEMBER, 1939

| | | | |
|---|-----|--|-----|
| Editorial | 521 | Honey Getting—Economics— <i>E. L. Sechrist</i> | 533 |
| The Orange and the Bee — <i>Robert E. Foster</i> | 524 | The Persian Form of Esparcette — <i>Edward Kellner</i> | 536 |
| Moving Bees Without Screens — <i>Lee H. Watkins</i> | 526 | President Bressler of Rhode Island State College— <i>Ruth Hodgson</i> | 538 |
| Glimpses of New York State (Part II) — <i>M. G. Dadant</i> | 528 | Meetings and Events | 542 |
| Light, Compact Extracting Trailers — <i>Jes Dalton</i> | 530 | Crop and Market Report— <i>M. G. Dadant</i> | 550 |
| | | Postscript— <i>F. C. Pellett</i> | 556 |

INDEX TO DISPLAY ADVERTISERS

| | | | | | | | |
|---|-----|------------------------------------|----------|--|-----|---|-----|
| Aeppler Co., C. W. | 550 | Clutter Publications | 553 | Hodgson & Sons, S. P. | 554 | Red Cross | 554 |
| American Bee Journal, Inside front cover, 517, Inside back cover. | | Crowville Apiaries | 555 | Iverson Honey Co. | 550 | Root Co. of Chicago, A. I., In- side back cover. | |
| American Honey Institute | 549 | Cutts & Sons, J. M. | 547 | Jewett & Sherman | 550 | Root Co. of Iowa, A. I., Inside front cover. | |
| American Pigeon Journal | 554 | Dadant & Sons | 518, 555 | Kelley Co., Walter T. | 553 | Root Co., A. I., 533, back cover | |
| American Rabbit Journal | 554 | Davis Bros. | 548 | Koehnen Apiaries | 554 | Rossman & Long | 554 |
| Australasian Beekeeper | 553 | Dusek & Co., Joseph | 555 | Lewis Co., G. B. | 520 | Rusch & Son Co., A. H. | 554 |
| Beekeepers Item | 554 | Forehand & Sons, W. J. | 546 | Lotz Co., August, Inside front cover. | | St. Romain's "Honey Girl" Apiaries | 546 |
| Blue Bonnet Apiaries | 549 | Foster, Wade H. | 548 | McCannell, Herman | 555 | Standard Churn Co., Inside front cover. | |
| Bordelon, E. J. | 547 | Garon Bee Co. | 517 | Magazine Mart | 548 | Stover Apiaries | 517 |
| Brock Store | 555 | Gaspard, J. L. | 554 | Marshfield Mfg. Co., Inside back cover. | | Weaver Apiaries | 549 |
| Burleson, Thos. C. | 554 | Gibbs, W. O. | 546 | Merrill Bee Co. | 547 | Woodman Co., A. G. | 547 |
| Calvert Apiaries | 553 | Goat World | 547 | Muth Co., F. W. | 517 | York Bee Co. | 555 |
| Citronelle Bee Co. | 547 | Great Northern Railway Co. | 549 | Overbey Apiaries | 554 | | |
| | | Hankammer Hdwe. Co. | 555 | Puett Co. | 554 | | |

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American Bee Journal

Vol. LXXIX—No. 11

Hamilton, Illinois, November, 1939

Monthly, \$1.00 a year

The Farmer and the Honeybee

THERE is much recent discussion of the need of bees on the farms for the purpose of fertilizing the flowers of fruits, vegetables and legumes, especially the clovers. Recent investigations have convinced scientific workers of the importance of the honeybee in the pollination of red clover. Reports from the Russian experiment stations indicate that more than half their red clover seed is the result of visits of the honeybees. These reports have been verified by work done at the experiment stations of Colorado, Iowa and Michigan where it has been shown beyond question that the honeybee is an efficient agent for pollination of red clover when she can be induced to visit the flowers freely.

There are numerous reports of increased yields of clover seed in neighborhoods where large apiaries have been placed. As a result many farmers who grow clovers for seed are anxious to have beemen move their bees to the vicinity of their fields. This demand is increasing and must be met. It suggests the possibility of the development of a specialized service which will enable the beekeeper to move the bees to the orchards for the fruit bloom and later use the same bees for pollination of the clover fields.

—ABJ—

What About Our Amber Honey?

FROM some of our editorials, and some of the articles appearing in the American Bee Journal, it would appear that amber honey and particularly strong flavored amber honey is to go begging and that by all means it should not be offered to bakers.

Most assuredly it should not be offered to bakers without them knowing exactly what it is and what the results are apt to be. If for white bread or any of the mild flavored light breads and cakes, naturally the amber strong honey will not do. However, there are a lot of bakery products where these bakery goods are spicy in themselves and where a strong flavored amber honey only adds "tart" to the product. In such cases, amber honeys will do. We know of many instances where amber honeys have proved exceedingly satisfactory for bakery products such as ginger snaps, ginger bread and other similar baked goods.

The difficulty that has arisen in the past has been that the unthinking beekeeper has made the mistake many times of offering and selling his strong amber honey without acquainting himself what use the baker will make of it. The baker himself being unacquainted with honeys and considering all the same, has gladly accepted the amber as well as he would the white honey only to be

End of Marketing Agreement

On September 5, the office of the managing director of the Marketing Agreement and Order for Handlers of Package Honeybees and Queen Bees, at Auburn, Alabama, made the following announcement: "This will advise you that the Bee Marketing Agreement and Order has been terminated as of August 29, 1939, by order of the Secretary of Agriculture at Washington. The authority for such action came from the package bee and queen shippers in the recent ballot on whether or not you desired to terminate or continue the Bee Marketing Agreement and Order.

"The problem of closing the office of the Managing Director will be supervised by the Trustees. They are the same as the control committee members of the Marketing Agreement and Order"

The announcement concludes with a personal message to the shippers from the managing director, J. M. Robinson.

You Need a Honey House

Speaking of devastating remarks, as Allen Latham does in the April number, page 169, it would be hard to find a more devastating remark than that in the short unsigned article on page 289, in June: "... the best procedure is to keep your comb honey away from the honey house ..."

One is tempted to ask what a honey house is for, but in too many cases the remark quoted above is sound advice. It would be more to the point to ask "When is a honey house not a honey house?"; and the answer would be, I suspect, "In nine cases out of ten." For a honey house serves its purpose effectively only when it is kept free of moths. Both carbon disulphide and paradichlorobenzene are convenient for emergency use, but when used as substitutes for a properly built honey house, they are unduly expensive and not very effective at best.

To make the honey house serve its purpose in this respect it is only necessary to have the room in which comb honey is to be handled and

stored tight enough so that in the routine of disinfection of comb honey supers with sulphur, the room will likewise be disinfected and will thus be kept entirely free of moths, with no further attention necessary.

Beekeepers making a business of honey production often complain of the advantages taken by chain stores and other large business organizations. Here, in the matter of honey houses, is one of a number of points at which the large beekeeper has an advantage over the small beekeeper, in that the latter often cannot afford a specially designed building for this work.

Walter H. Hull,
North Carolina.



British License Imports

An order prohibiting imports into the United Kingdom of certain goods, except under license, has been issued by the British Board of Trade, according to the Office of Foreign Agricultural Relations, U. S. Department of Agriculture. The object of the order is to limit imports of luxuries and of goods of which there are sufficient home supplies in order to conserve exchange for the purchase of other products required in war time.

The only agricultural products thus far made subject to the licensing feature are certain luxury foodstuffs. In the latter category are included fresh fruit (other than apples, pears, bananas, grapefruit and limes), honey, nuts, canned vegetables (other than tomatoes), fresh vegetables (other than potatoes, tomatoes and onions), fruit juices, hops, and licorice. A long list of non-agricultural products was made subject to the licensing requirement.

It was emphasized by the Board of Trade that the adoption of the licensing arrangement does not mean that the items listed cannot be imported. Since the objective is to save exchange in order to utilize dollar resources for the importation of absolute necessities, it is believed that a virtual ban will be imposed on the importation of all luxury and semi-luxury items which can be supplied in adequate volume by home resources. [United States Department of Agriculture Release.]



Louisiana's Honey Certification

The committee representing the Louisiana Beekeepers Association on the certification of honey met in Baton Rouge, on September 8, with

greatly disappointed and in many cases to "learn a lesson" and be done with using honey at all.

Most assuredly this has been a mistake. We tried ourselves with a bakery supply company some years ago to make a mixture of our strong Spanish-needle amber fall honey with white in order to give the bakery supply firm something he could sell to the bakers at a little more moderate figure. Imagine our surprise when we found that even a 10 per cent admixture of the amber honey gave too strong a flavor to the other 90 per cent of good white grades.

The moral is not to try to "palm off" your honey if it is off flavor or off color to an unsuspecting baker, but to make a genuine effort to put it into those channels where such a baking honey is not only satisfactory but in many cases is desired.

Unless the beekeeper can himself give just this service, undoubtedly sooner or later restrictions will begin to be placed, permits will need to be secured, or all honey will have to go through a grading and packing station so that an unfamiliar baker may buy by grade and pack and be sure of what he gets.

Successful folks know that consummation of the sale and delivery of the product with proper remuneration is not the final end of a business deal. Satisfaction must follow. Business and industry have been built upon this fact.

—ABJ—

Those Western Meetings

BEEMEN who have looked forward to a trip to the west coast will find an attractive opportunity at the time of the convention of the Honey Institute, the Honey Producers League and the California Beekeepers Association to be held in California in November.

Those from long distances should allow plenty of time, since there are so many things to do and so much to be seen. There will be many new acquaintances at the meetings, much sight seeing and of course the California World's Fair, on Treasure Island.

One who is interested in plant life will find a bewildering variety of new trees, shrubs and flowering plants. To such a one a visit to Golden Gate Park in San Francisco is alone worth a trip to the coast. We hope that many of our readers will find it convenient to take advantage of this opportunity to attend an interesting convention and to get acquainted with the West.

—ABJ—

Bees and Red Clover

THERE is much misunderstanding of the relation between the honeybee and red clover. The flower tubes of ordinary red clover are too deep for the honeybee to reach the nectar but she often works the flowers freely in search of pollen. Her visits result in the pollination of the plant even though she fails to get the honey. If more favorable pasturage is within reach the red clover flowers are likely to be deserted entirely, but lacking such competition, a good crop of seed may come because of the visits of the honeybee.

Virgil Weaver, an Iowa beekeeper, sends us a report of three

fields of red clover cut for seed the current season: Farm No. 1 had ten acres of red clover within one mile of 200 colonies of bees and averaged 4.2 bushels of seed per acre. Farm No. 2 had twelve acres of red clover within one mile of 90 colonies of bees and averaged 3.6 bushels of seed per acre. Farm No. 3, which was four miles from the nearest apiary, harvested only one bushel per acre.

In many localities where the wild bees have largely disappeared the problem of pollination is becoming so acute as to compel farmers to get honeybees or change their method of farming. One very large farm in northern Iowa has recently established apiaries of about a thousand colonies for the purpose of insuring a seed crop in the vast fields of sweet clover which cover about 500 acres.

It is this growing dependence upon the honeybee for pollination which has led to the effort to secure a red clover with short corolla tube to enable her to reach the nectar. While the Zofka red clover accomplishes this result no supply of seed is as yet available in this country.

—ABJ—

Tall Jar Ruled Out

FROM the Bee World we learn that a new rule has been adopted by which the tall jar is excluded from exhibition at the Royal Agricultural Society of England shows. Only squat jars may be used and it is said that they show up the color of the honey much better than the tall jars formerly in evidence.

Much objection is heard from time to time to the tall jar as a container in which to retail honey. It is difficult to reach the bottom and to remove all the honey and it is more easily upset. A short wide jar seems to be a more suitable container for honey for either exhibition or sale and our English cousins may be a step in advance in banning the tall jar from exhibitions.

Since exhibits offer an unusual opportunity for building up demand, it is highly important that they be conducted in such a manner as to achieve the greatest possible sales appeal.

—ABJ—

Iowa Apiarist Report

THE annual report of the State Apiarist of Iowa for 1938 is off the press. This year State Apiarist, F. B. Paddock, has adopted a new plan. Instead of including the papers of the bee convention, he has used a large portion of the space for a manual for beginning beekeepers.

This beginners' book is not a mere rehash of similar books which have appeared before, but Paddock has his own plan of presentation which is quite different from that usually followed. He gives much attention to the importance of bees in pollination and emphasizes the use of package bees.

Since this is a bee book to be had for the asking, we anticipate that there will be a heavy demand with the possibility that the limited edition will soon be exhausted. Those who are interested in securing a copy should address F. B. Paddock, State Apiarist, Ames, Iowa.

W. E. Anderson, of the Department of Agriculture, to formulate rules and regulations governing the certification setup as adopted by the members at the recent annual meeting, on August 21.

Mr. Anderson gave his wholehearted support to this movement which we feel is necessary to rehabilitate the honey industry, not only in Louisiana, but in the entire country. The honey producers are fully aware of the fact that certification is a serious undertaking, but indications are that the majority will endeavor to qualify as certified honey producers by 1940. Because of Mr. Anderson's cooperation, the first proposal—to have the association certify honey—has been abandoned, as we know that a certificate backed up by our Department of Agriculture will put more weight in the setup and ultimately prove more successful.

It is our hope that in the future a honey co-operative will be formed to handle all certified honey produced in this state. We must first determine the volume of honey produced in Louisiana and permit time to show the number who will work with us and be willing to finance a co-operative. In the meantime, we shall endeavor to work together, with a view to supplying the buyers with a continuous source of certified honey. It will be the duty of every member to solicit business and always to remember that he has not only his own crop to move but that of his fellow members as well, whenever such opportunities offer.

The affidavit forms will be ready at an early date and will be available to the honey producers of Louisiana. The honey producers qualifying for certificates should get in touch with C. T. McKnight, Box 1028, Shreveport, who is now secretary of the association. Certification is not compulsory, but it is the only way to join the co-operative selling setup which the association is sponsoring. We would want information as to the amount of honey the producer will have to market through the association arrangement. Those producers who are not members and wish to certify their honey may apply to Mr. Anderson. The forms should be had early in order to study the requirements and to prepare for the inspection which will be made by the bee inspectors.

It is obvious that the more honey we can work with, the better chance we have of forming a honey co-operative with a man to sell our honey and prepare it for market. Those who are interested should communicate with our secretary NOW.

E. C. Bessonnet, Member
Certified Honey Committee.



The Orange and The Bee

By ROBERT E. FOSTER,

Florida.

H. A. Pease, under loaded grape fruit tree in Rio Grande Valley.
(Photo by Larence Pease.)

[There is considerable discussion among grove owners in Florida and Texas particularly about the value of the bee in securing a crop of citrus fruits. There is no doubt among beekeepers that citrus is a favorable source of nectar and the orange honey of California which is a relatively pure form has long commanded a premium on the American Market. Florida orange honey when obtained free from other sources is also a superior honey. Frequently in parts of the South, however, orange honey is mixed with the nectar from other bloom prevailing at the same time, so that an absolutely pure product is not always obtained.]

Whether or not the honeybee serves some purpose in increasing the quality or size or the actual set of citrus is a question yet to be definitely determined. There seems to be an opinion among some growers that the presence of bees is of considerable value to them; that the fruit they get is of a better quality because of the effort of the bee than they could obtain without bees in groves. As a result of this prevailing opinion, many beekeepers are now establishing grove apiaries in the blooming season, and investigations have been initiated to determine the exact value of cross pollination in this important crop.

The picture on the front cover this month was furnished by "Texas Farming and Citriculture," published at Harlingen, Texas. The picture here showing the grapefruit tree in fruit is also from the same source. In "American Fruit Grower" for February, J. F. Rosborough, extension horticulturist for Texas, discusses the citrus fruit of the state describing a comparatively young industry. The first citrus fruit orchards in Texas were planted in 1912. The lands on which the plantings were made were for the most part carved out of a subtropical wilderness of mesquite trees and native underbrush.

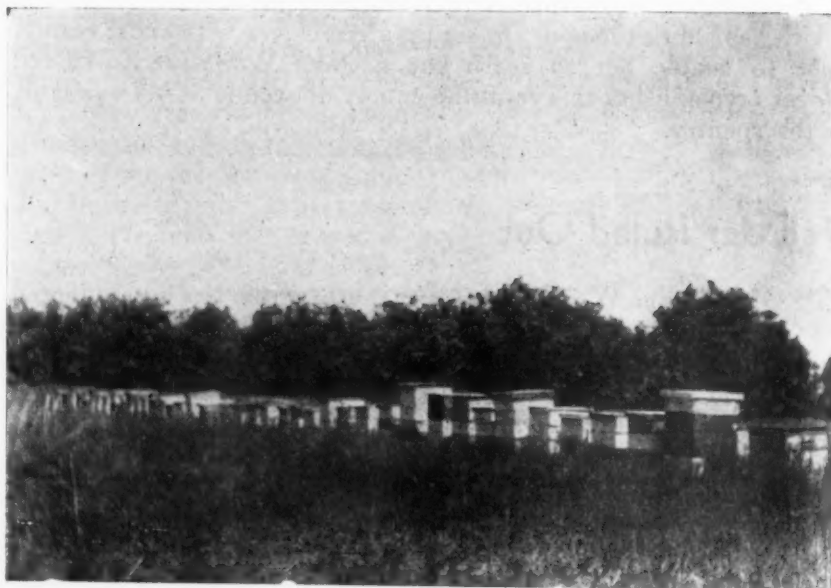
Robert E. Foster, apiary inspector for Florida, furnishes the picture of the grove apiary shown here and Burgert Bros. the picture of the bee on the orange bloom. Inspector Foster contributes the following about bees and citrus—Editor.]

WHETHER or not bees are of any value in the pollination of citrus bloom is a question upon which authorities differ.

It is a well-known fact that nature has supplied citrus blossoms with an abundance of nectar. Botanists agree that the only function nectar has in the development of fruit is to entice insects to the blossoms. As the bees and insects gather the nectar they also carry pollen from flower to flower, thereby aiding in cross pollination.

In the opinion of some authorities citrus does not need cross pollination, as each flower is both staminate and pistillate.

Others claim that even though the flower of the citrus tree is known as a "perfect" flower, it is possible that



Foster sends this grove apiary. Many similar yards are now to be seen each year in Florida.



Texas Citriculture magazine (Weslaco) furnished this picture of grape fruit. They also selected the tree on the cover.



Two photos by H. A. Pease (Iowa) Top shows citrus stock ready for the orchard. The disposal of surplus fruit from rapidly increasing plantings has become a serious problem, both in the Valley and in Florida. Juicing plants may be the answer. The grove below is an ideal place for bees.

bees play an important part in carrying pollen from stamen to pistil.

A third group advances the theory that seedless varieties do not require pollination in order to set and mature fruit, but that varieties having seeds do, therefore, insects probably are essential in the pollination of the latter type. This corresponds with the experience of a number of extensive grove operators. These growers like to have bees located near their groves as it is their opinion that a much larger crop and a better quality of fruit is the direct result of bees having access to the bloom.

It is to be regretted that no extensive research work or experiments have been conducted along this line, as in the case of apples, cherries, and other fruits.

—ABJ—

Winter Packing

I provide for a top entrance by using a simple, flat cover made from three boards. The center board is three inches longer than the other two and out of it is dadoed a groove four inches wide, which runs back approximately half way on the under side of the cover. Around the edge of the cover, strips are nailed similar to those of an inner cover.

I pack my bees in groups of ten—five facing north and five facing south. The hives are set on a two by four base to make them all even in height. Then, using four panels made from inch lumber, I enclose the group, allowing the bottom of the panel to fit on the projection from the bottom board. These panels fit as closely to the hives as possible and



come just up to the projecting top entrance. The whole group is then banked with dirt to within four inches of the top of the panels. On top of the hive covers go sacks partly filled with sawdust so that they will flatten out and make a good thick pad. A large cover is put over the entire group and nailed down to the four panels.

Out here where rough lumber is very cheap, this sort of packing is inexpensive, and two men can easily pack a hundred hives a day. By having the face of the top entrance turned down, there is no tunnel to clog and freeze.

For wintering, I leave my bees in two standard, ten-frame hive bodies.

A. H. Goolsbey,
Oregon.

Burgert Brothers, (Florida) sent this catch to Foster who promptly furnished it to illustrate a number of accounts and notes about the bee on orange bloom.



Moving Bees Without Screens

By LEE H. WATKINS,

California.

IN the San Joaquin Valley it is the usual practice to move bees to new pastures five or six times a year. Thus, hauling bees is one of our major tasks. It appears that it is still the custom in most states of the Union to use screens, either entrance or top, or both, when moving bees. We learned in 1926 that screens of any sort were a nuisance, that they smothered the bees, and made a big job out of bee hauling. Bees can be moved almost any distance, under practically any conditions, without the use of any sort of screen, cleat, or nail. We stumbled upon the method accidentally thirteen years ago. The practice has gradually increased until now almost all of the beekeepers in California move bees without screens.

We discarded top screens in 1922, finding that the entrance screen was much more convenient and just as safe. We reasoned that, since the hive had its ventilating system adjusted to the use of the entrance for air, the bees would get along as well without the clumsy, old-fashioned top screen as with it. This we found to be the case, although with the entrance screen we still smothered some bees and injured others. Especially was this true during warm weather. The migratory problem has become acute here; for since the coming of the motor truck, we think nothing of hauling bees hundreds of miles to new feed, on short notice.

In the spring of 1926, we had about 600 colonies of bees in the Coast Range Hills west of Kettleman Hills. The sage that year was a failure, and we waited well into June for the buckwheat flow that never came. Suddenly we discovered that the bees were being poisoned on the buckeye, necessitating immediate removal to a new range to save them. We were having the usual unusual California weather, with the thermometer running between 105 to 110 degrees every day. Our bee yard was located at the end of a narrow, winding, seven mile road with curves so sharp that we could not drag our trailer to the yard but had to leave it at the mouth of the canyon, seven miles away. Thus it was necessary first to take a load down the canyon for the trailer and then come up the hill for the truck load.

The thermometer stood at 106 degrees when the two of us, at two

o'clock in the afternoon, started to put a load on the truck to take down to the trailer. As we set each hive upon the truck rack, we poured about a cup of water into the entrance to cool the bees down a bit. We were using entrance screens and, to make it still worse, the slight breeze that did exist was blowing down the canyon, so we were only a little way down the road when we began to smell the hot bees.

By the time that we had arrived at the mouth of the canyon the sun was almost down, and the bees were beginning to suffer. We set them on the trailer as quickly as possible, pried off the screens, and watched the bees boil out. Four hours later, when we reached the mouth of the canyon with the truck load, the white hives on the trailer were black with crawling bees. Great wads of lively, roaring bees covered the trailer and even hung down over the rack. We tried smoking them a bit, but the smoke just seemed to make them crawl worse. There we were—stuck with an open load of bees; to say the least, they had us worried. Well, there was nothing to do but try and hitch on to the trailer and take the hives with us. Anyway the combs would not be melted down; but our real worry was the pertinent question of just how many dozen bee stings we were going to get when we attempted to unload them the next morning. Very carefully we backed the truck up to the trailer, hooked it on, and started out across the plains. Our destination, distant eighty-five miles, was quite a jaunt in those days of slow trucks without cabs or pneumatic tires.

Far out on the starlit plains we stopped late that night to get a few hours' rest. It was still warm, with scarcely a breeze to stir the grass tops. The screened bees on the truck were roaring, while those on the trailer were a lot quieter; nor were the hives any longer black with bees, though great wads of bees still hung between the hives. We worried so much about the bees on the trailer that we could not sleep, and two hours later we were on our way again.

When daylight caught us there were still twenty miles to go; the sun was well up in the sky when we arrived at our destination. We got stuck in the sand fifty yards from

where we had intended to set the bees, so we borrowed a wheelbarrow from a neighboring farmer and started trundling the bees, two colonies at a time, to their new location. We decided to leave the bad job for the last, therefore we started to unload the truck first. As usual, a few of the screened hives were not absolutely bee tight, and a few bees sailed out with their tails curled whenever we approached the truck. As anyone who has moved bees knows, those that came out were plenty mad. We managed to get the truck unloaded with only about a dozen stings apiece. Then we sat down to rest for a while, and to gather our courage before tackling the dreaded job of unloading the trailer.

When we finally approached the trailer, we could see a great number of bees flying around the load, but we waded in bravely with our smoker and laid down a smoke screen. Very carefully we loaded two hives onto the wheelbarrow. Moving slowly so as not to jar them, we started the long fifty yards to their new home. One person wheeled while the other walked along beside and kept the smoker going, for we then innocently believed that a smoke screen was needed to save us from the stings. After four or five trips it dawned upon us that we had not received a single sting or, for that matter, had not even heard a mad bee; we decided that perhaps we were going to be lucky this time and get out of the mess with whole skins. So it ended—the whole trailer load was set off without a single sting. Congratulating ourselves on our good luck, we started to remove the screens from the hives that had been on the truck. How the bees did boil out, and here we found those hot tails that we had been fearing; however, we were well pleased, for not a one of the hives had melted down, though we had the usual job of cleaning out the piles of dead, wet bees from each entrance. Strangely enough, there were no dead bees to clan out of the hives that had been on the trailer.

Back to the hills we went for another load, hoping that our good luck would only hold out for the other five loads. And so it did for the second load, and for the third, both being a repetition of the first load. On our way back for the fourth load, three days later, we began to

wonder, then we began to think about the three loads we had hauled, and we suddenly realized that we had learned something. **It was better not to use screens at all.**

All this happened thirteen years ago. Moving screens, smothered hives, and great piles of stinking, dead, honey-covered bees have become only bad memories to us; memories of anxious hours spent on the rough, slow-moving truck through those long hot nights, wondering how many of our best colonies would be stinking masses of dead bees covered with melted comb and honey when it came time to unload them the next morning. Now we move bees from five to three hundred miles in one night, in the summer heat, in the winter cold, in almost every sort of weather that California has to offer, and we have not used a single screen, top or entrance, on any of the hives. Furthermore, we soon learned that it was a waste of time and energy to cleat any of the supers together or to nail the lids down. When an occasional super did happen to break loose from the propolis glue deposited by the bees, it was necessary only to put it back into place, for the unconfined bees were not mad but crawled back into the hive with the persuasion of a little smoke. Thus we can say without question that moving bees without screens, cleats, or nails, is the simplest, easiest, cheapest, quickest method, and most of all, the least harmful on the bees. When moving bees under the conditions that we had to put up with, using screens made it a gamble as to whether we would arrive with the bees alive and unharmed, or whether we would have a mass of dead bees to clean up; but moving bees without screens eliminates all this worry and financial loss. Furthermore, to insure success in moving bees without screens, it is necessary to follow only a few simple rules.

When screens are used it is necessary to wait until all the bees are in their hives, which is usually after dark; but without screens we start loading about one half hour before sundown, unless the bees are flying well. Three persons is the ideal number to load a truck, two to set them on and one to stack them on the truck bed. Two smokers should be used, one to use before the hive is picked up, and one to use after they are stacked in place on the truck. It is best to put a hive into place as soon as possible after it has been set on the truck, for the bees soon forget the smoke and will come out if the hive is moved without being smoked again.

We have loaded bees late at night with success, but do not advise it, especially if it is warm, as the bees are apt to crawl and sting badly on warm nights. The best time to unload the

bees is just after daylight, but we have unloaded them at all times of the night. The important thing to remember in any night handling of bees is to use plenty of smoke. If it is a warm night, and the bees are all over the hives, a steady five or ten minutes smoking will send the most of them back into their hives; but they will quiet down themselves on a long haul. If we have to haul a bunch of bees on a warm evening, we usually turn a water hose on the load and cool them down. It makes a big difference in the number of bees crawling on the hives, as the cool water makes them cluster. Sometimes we have quieted a load with a dozen or more buckets of water taken from a ditch and thrown over the hives, when no water hose was convenient. Neither have we ever had any trouble in stopping at a service station and using their water hose to wet the bees down. As the Roots pointed out over twenty years ago, the bees soon quiet down when the truck gets to moving. Some of the strong hives will cluster in front of their entrances but will stay there and not bother anything. If you are after daylight getting to the new location, it is advisable to keep the truck rolling as the bees will start to fly as soon as the truck is stopped. We have driven many times until the sun is several hours high and have never had any difficulty with the bees.

Late in the fall, and sometimes in the early spring, when the valley fog covers the sun all day and keeps the bees in the hives, it is possible to move several loads of bees during the day. One has only to go along smoking them, and then handling them is like handling so many boxes. During near-freezing weather, though, bees should not be moved, as the disturbance may cause them to break cluster and freeze before they are able to cluster again. At the other extreme, it is best not to move bees during very hot weather unless you want to take a chance of a good stinging. If the bees are to be moved only a few miles, it is best to park for the night and unload in the morning as they will then be much quieter, and there is little danger of getting stung. We have got into the habit of moving bees at our convenience, though, treating them as so many boxes, except for the few puffs of smoke into the entrances now and then.

This is the beauty of not using screens. We simply move the bees whenever we feel like it and never have to worry about killing them. Several times we have broken down with a load of bees on the truck, but we have had no trouble in setting them off by the roadside. In case of a smashup, there are bound to be bees all over the country, but if they

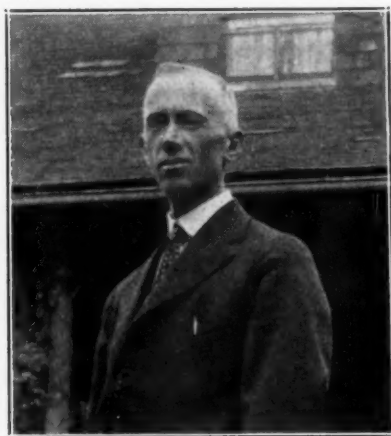
are not stopped up, it is much easier to control them with the smoker; a screened hive, on the other hand, is plenty mad when it is broken open.

Of course, the best reason for not using screens is that we no longer smother any of the bees, which over a period of years means a large saving financially. During the thirteen years that we have used no screens, we have hauled over a 100,000 hives and killed only one, which was smothered by a hive bottom cleat accidentally slipping over the entrance. Another big factor in favor of this method is the great saving in time and labor. Before, it took three or more hours to cleat, nail down the lids, screen the entrances, and load the hives on the truck; with top screens it took still longer. Usually it was several hours after dark before we could get on the road. But now in about an hour we can load a hundred colonies, rope them down, and be ten miles down the road before we have to turn our lights on. For the beekeeper who has to hire his moving done, this method is a great saving; on the other hand, if he does the work himself, he is able to save himself a great deal of effort, and does not have to spend all night on the road with a load of bees. We can say from experience that one of the worst things about migratory beekeeping is being out nights herding a bunch of bees. It may sound romantic in books, but actually it is not fun.

There are many beekeepers who will say that bees cannot be safely moved without screens. We ran into this objection from the very start, some beekeepers even thinking that we were trying to spoof them. Even when we showed them loads of bees on the truck that were open, they still clung to the old method of killing bees. It was a good method, too, for it was always the best hives that were smothered. Only after they smothered an extra choice load did some of the beekeepers throw away their screens. It appears to be a human trait to learn the hard way. Many times, simply because a thing is new, we are afraid of it. Some beekeepers also claimed that a large number of the bees would fly off the moving truck and be lost. It does not work this way, for as soon as the truck starts to move the bees settle down and apparently enjoy the ride, which is certainly not the case when they are screened in.

Try a couple of loads open, and you will throw away your screens, too.

[We have moved bees ourselves short distances with similar success. However, we have never moved bees from one place to another which would bring the truck to daylight and involve stopping for traffic or at oil stations or otherwise delay the trip. In that case we use both top and bottom screens. We have found that moving bees when the weather is cool without preparing the colony in any way as you suggest is very satisfactory.—Editor]



Glimpses of New York State And New York Beekeeping

By M. G. DADANT, Illinois.

Inspector, A. G. Gould. (Center) Geo. Ren, tireless extension worker. (Right) Dr. E. F. Phillips (*Apis tyrannis* to his friends.)

(Part II. conclusion.)

SOME years ago, when Cornell University was searching for a scientist to head their department of beekeeping, they succeeded in persuading E. F. Phillips, then chief of the Bee Culture Laboratory of the United States Department of Agriculture, to give up his position and assume the direction of beekeeping studies at Cornell. Since that time, this man has directed the work of many a graduate student who has afterward become prominent in the field of scientific beekeeping.

Dr. Phillips has the required background for such leadership—a lifetime devoted to the science of beekeeping and a memory of almost



(Above) Modified Dadant yard of Scott Traxler in western New York. (Below) Apiary of William Keyser in eastern New York.

uncanny accuracy. During one afternoon of our visit at Cornell he related anecdotes about American beekeeping history—some of those stories which have never appeared in print but which I have often heard from my father and grandfather, who were closely linked with the beekeeping of those early days. Dr. Phillips has made several trips to Europe, always on the lookout for anything which might be adapted to American beekeeping. He says he is sorry only that he cannot read all the hundred or more foreign bee journals which he receives, though he can digest perhaps more than half of them in several languages. Rotary has profited by Dr. Phillips' interest, as he was



Walter Severson scratches his head as Roy Middleton, Carniolan queen breeder, tells of the quality of his bees. Dadant listens.



Fruit and honey roadside stand of McMullen and Lyman, beside a giant elm.

recently elected third vice-president of Rotary International. No doubt his ascent to the presidency is only a matter of time.

We spent an interesting afternoon and evening with Lloyd R. Watson. It is he who has perfected the apparatus and technique for artificial insemination of queen bees and has devised the process for detecting the presence of carnauba wax in pure beeswax. He is working now to discover to what extent certain characteristics may be transmitted in bees from generation to generation by controlled and scientific breeding.

At Dr. Watson's we saw downy, hairy bees, so downy and hairy that you might almost imagine they could be easily trapped and lost in a cocklebur patch! We saw drones with colored eyes, shading from pink to red to maroon and from white to cream to brown—some twenty or more shades in all. What is the value of this, you ask. If Dr. Watson

can establish certain facts about heredity in bees, who knows but that ultimately, through scientific breeding, we may have honeybees with longer tongues, larger honey sacs, stronger wings, just as now we have racing and draft horses, and as chickens are bred for egg laying and weight.

There was a time when New York State beekeeping was in a precarious position. Fortunately, there came into the field about twenty years ago an extension man with a knowledge of the relationship between beekeeping and climate and soils, and between beekeeping and fruit raising. That man was George H. Rea, whose earlier work was done as an extension man in the Carolinas and Pennsylvania. Authoritative and entertaining, Rea is ever in demand for speaking appointments. His work with 4-H clubs in beekeeping as well as his cooperative work with county agents in pollination problems is already well known. He and his wife, who travels with him most of his time in the field, are known, loved, and respected from one end of the state to the other. Rea has always been a beekeeper himself. He tells me that he intends to go back to his old home in Reynoldsville, Pennsylvania, when he retires, there to devote some time to his bees, to growing plants and shrubs (his hobby), and to writing of his experiences. Such a series will have human interest as well as beekeeping value, and we hope he lives to be a hundred to make his work complete; for George H. Rea, with his energy, will still be uncovering things of value and interest at the century mark.

It was fortunate that when the beekeepers of New York became aroused by the depredations of American (Please turn to page 548)



George Rea keeps the crowd in good humor and makes his point as well. (Cattaraugus County Meeting.)

Bees and Grapes

—If skeptical—prove it yourself.

Finding bees working in a great abundance in my grape arbor recently, the writer, in spite of previous writings and observations, became a bit suspicious because of the large numbers and some peculiar looking holes. No bees could be found actually puncturing the grapes.

Bunches of grapes containing some sound and some cracked, punctured or slightly loose at the stem were placed in the entrances of a half dozen hives directly among the groups of entrance guards. The number of sound and unpunctured grapes were actually counted and

records kept, the average being eleven sound grapes per bunch. During the ensuing interval up to 3½ days after placing the grapes in the entrance, no injury could be found to a single one of the 66 sound grapes in the six hives. The injured grapes had been completely sucked dry. The bees at first crawled all over the bunches of grapes but in many cases the group of the bees later shifted to the opposite side of the entrance away from the grapes. Some grapes were worn smooth and shiny, in some cases dragged from the alighting board only to have the process repeated when again placed in the entrance.

Perhaps this evidence may help to convince the skeptical grape grower, who does not realize that numerous kinds of birds are the culprits in the early morning hours. Sometimes the weather is to blame, for when grapes are ripening in period of general heavy rainfall, there is a tendency for the grapes to burst from their own inner pressure. Can-

not we give the bees credit for cleaning up possible sources of fermentation and developments of molds and fungi?

V. G. Milum.

—ABJ—

Campers Beware!

The traditional virtue of the bee has received a heavy jolt. They have been reported to have become intoxicated on beer. A party of young men camping near Kilgore, Australia, found their camp infested with drowsy bees. Upon investigation it was discovered that the bees, not finding water plentiful, had quenched their thirst among the beer bottles stacked about the camp. They could not find their way home.

Too bad for them, with hives all white and in straight rows. We've heard of the difficulty the inebriate have in row houses in Baltimore but never thought of this argument for diversity in the bee yard arrangement.—Editor)

Michael Kohr,
California.



Light Compact Extracting Trailer

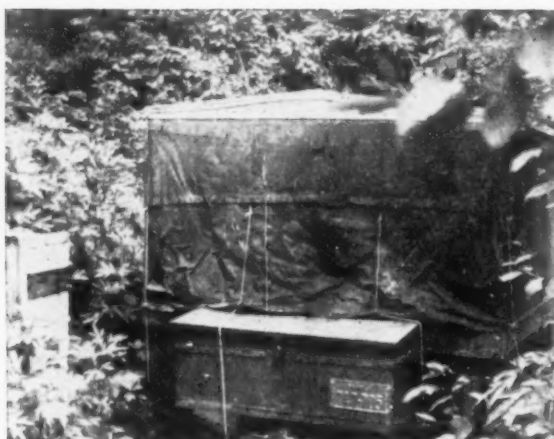
By JES DALTON,

Louisiana.

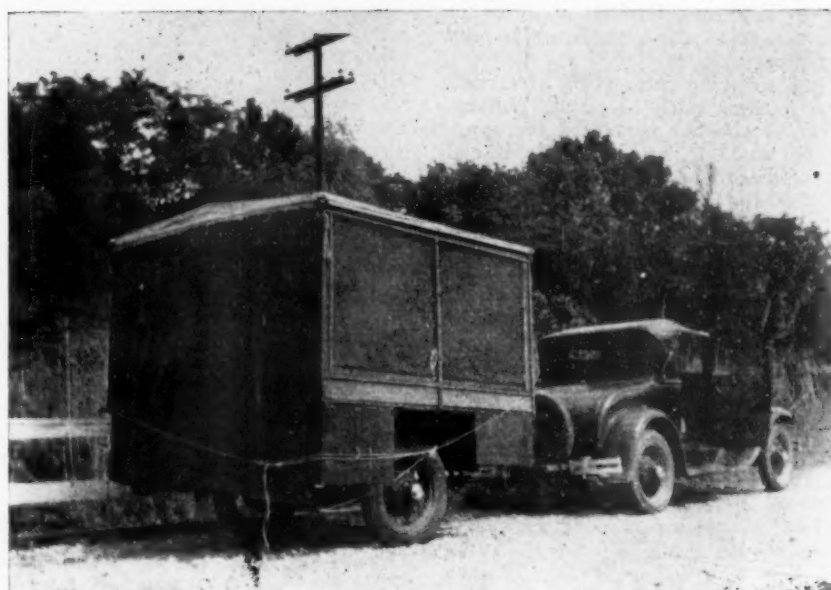
THERE have been many pictures of heavy extracting outfits appearing but none for smaller operators. I enclose pictures that show a light, roomy extracting trailer. The outside road width is six and one-half feet, length seven feet, completely screened all around. Cutting the floor down behind the axle gives convenience and makes room.

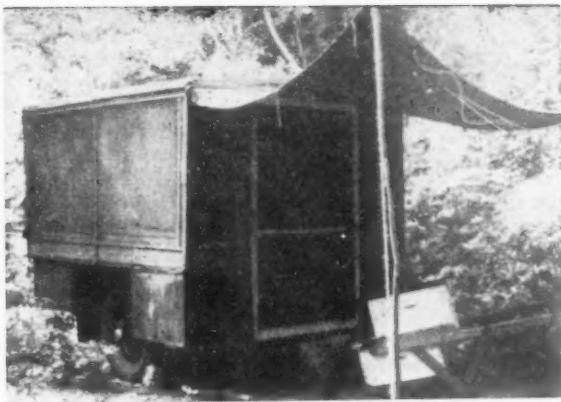
One picture shows the small extractor sitting on one side and uncapping box on the opposite, supers, cans, and cappings stored in front.

There are canvas curtains and rain shields on the sides, and canvas drops for the front and rear that can be used as canopies. Across the front end is a large tool box. Underneath one front corner is an ice box. Underneath the other a tool or pot box for camping. Under the rear

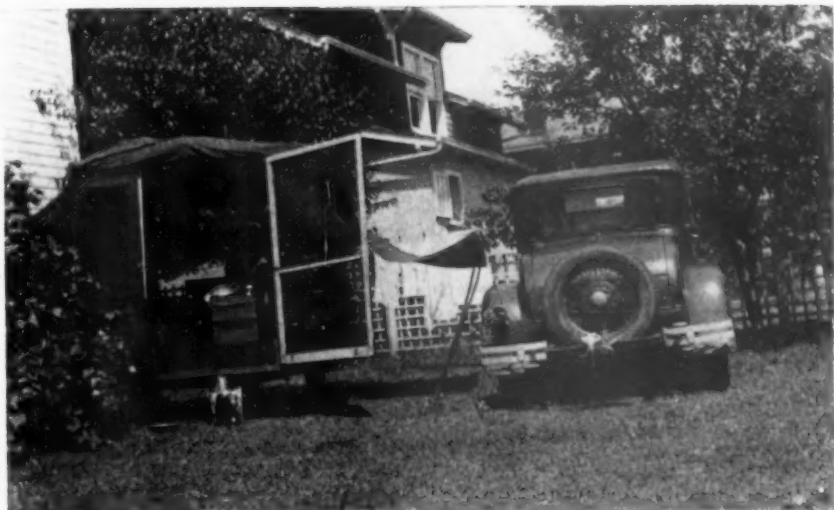


At the left, the rear of Dalton's trailer stands open for use. Center is a front view, in the bee yard. Below, on the road, hitched to the coupe.





Left, trailer in the bee yard, canopy up and supers to be put in. Center, the same trailer now in use for the family and you can see in the bottom picture they do enjoy it.



corners are roomy boxes and cabinets.

This truck is compact and light. One man can wheel it up among the hives and go to work. It makes at least fifty per cent less handling and lifting, hauling and mixing of supers and combs. To load for the road, it is necessary, of course, to put extra weight in front of the axle to prevent road sway, but this may be re-adjusted when arriving at the yard

where it handles about like a push cart.

For camping, a camp stove takes the place of the uncapping box and a bed for the extractor. Another bed is hung across the front and the tool box, etc., filled with groceries and camping materials. Presto, a compact little home on wheels. The curtains make fine canopies, and with a folding card table and a couple of

chairs two people are as comfortable as one can be made.

This outfit could be built without much expense. I used wheels to match the car and never used a nail in anything, all bolts and screws. Bolts and screws forestall an upset and rebuilding. We have yet had no trouble with this trailer.

—ABJ—

Painting Queens

Marking queens with a spot of paint is commanding the attention of many beekeepers. Some of them believe it makes for greater ease in finding a queen when wanted, others use it as a means to keep track of the age and stock of the queen. Since there is this interest, it might be helpful to those with little experience to know some of the tricks connected with queen marking.

Formerly, I used Duco for marking, gave the queens a Duco finish, as it were. However, the formula for this paint has apparently been changed, and not as good results are had with the present product. Satisfactory marking is now done with four-hour drying enamel, which sells in the 5 & 10 cent stores, four ounces for a dime.

When a can of quick drying enamel is opened to dip in the applicator, there is a great tendency for the enamel to become too thick, owing to its quick drying qualities. To remove this difficulty a small hole slightly larger than an ordinary pin, is punched in the lid. Some people recommend a camel's-hair brush to apply the enamel. That might be all right if one wants to paint the queen all over. As an applicator, one may use a pin or a small spear of grass. As the enamel tends to spread when applied to any surface, in order to get a small enough amount on the queen's thorax, when the applicator is removed from the can the excess paint should be removed from the applicator.

Occasionally bees will attack a freshly painted queen. Should they shows antagonism, the queen may be caged for a short time, until the enamel has dried and the odor of the paint has become less offensive to the bees. Five minutes has proved to be ample time for this.

The can of enamel should be shaken thoroughly before using to assure uniform consistency. When you are through using the enamel, put a dab of wax over the hole in the lid.

Elmer G. Carr,
New Jersey.

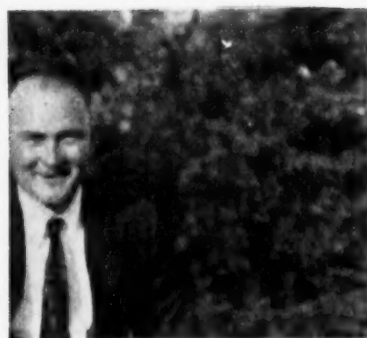
Lower Illinois Valley Cooperative



Hoyt Taylor



Marion Porter



Leonard Robins

A new honey marketing cooperative has been organized by a group of producers in the Lower Illinois River Valley. So far, about nine beekeepers have signed the membership agreement. Hoyt Taylor has been elected president; Marion Porter, secretary-treasurer; and Leonard Robins, general manager of the honey processing and bottling plant at Mt. Sterling, Illinois.

In the membership agreement, drawn up with the assistance of the State Agricultural Department, the individual producers agree to deliver to the bottling plant all the honey they produce except what they consume themselves. In return, the co-

operative remits to the producer from time to time as the honey is sold, keeping back as a working capital a small percentage of the net proceeds.

The cooperative should certainly give its members a more dependable, standard grade of honey to market. They will probably be able to build up a stable list of customers resulting in an increased income from their honey.

—ABJ—

George Fernes

Mr. George Fernes, 120 Fox Street, Fox Chase, Philadelphia, Pennsylvania, passed away on September 12, 1939, after a brief illness. George will be greatly missed by all of us

as he lent much help in the reorganizing of the old Philadelphia Beekeepers' Association. His suggestions and advice were always a help to the beekeepers. George and his brother had about forty hives in their apiary which they maintained in their spare time.

Harry B. Pye, Secretary,
Philadelphia Beekeepers' Ass'n.

—ABJ—

Theft

Supers filled with bees were stolen from about eighteen colonies operated by Walter Althaus, Shawano, Wisconsin. Mr. Althaus estimated the loss at about \$100.00 in honey and equal amount in fixtures.

H. C. Brunner, Wisconsin.

—ABJ—

Walton Appointed to Bureau of Chemistry

H. S. Paine, Chief of the Carbohydrate Research Division, Bureau of Agricultural Chemistry and Engineering, U. S. Department of Agriculture, announces the addition to its staff of George P. Walton, Associate Chemist, to fill the position left vacant by transfer of R. E. Lothrop. Mr. Walton will continue the chemical and technological work on honey which was so ably carried on by Mr. Lothrop, and with which the honey industry is familiar through articles which have appeared from time to time in bee journals and through addresses before beekeepers' meetings.

Mr. Walton has a background of extensive research experience in the field of carbohydrate chemistry and has devoted much time to the investigation of chemical and technological problems such as those involved in research on honey. He is the author of a large number of scientific publications and is a fellow of the American Association for the Advancement of Science and of the American Institute of Chemists, and a member of the American Chemical Society, and the Washington Academy of Science.

Mr. Lothrop will be Assistant Director of the Eastern Regional Research Laboratory which is also administered under the Bureau of Agricultural Chemistry and Engineering. He will be located at Philadelphia.



George P. Walton



R. E. Lothrop

HONEY GETTING

ECONOMICS

By E. L. SECHRIST,

Tahiti.

THE publication of the United States Department of Agriculture Technical Bulletin No. 656, which may be obtained from the Superintendent of Documents, Washington, D. C., at the price of ten cents (not in stamps), permits me to make what I have to say on the economics of honey getting shorter than it otherwise would be and to refer the reader to the bulletin for further information.

It is important that every honey producer in the United States should read and study it because it is the best work of the kind that has ever been done. Unless I am mistaken, it is the most important beekeeping bulletin printed in many years.

This bulletin, **Cost of Producing Honey in California**, is just as practical for the beekeeper in New York as it is for the beekeeper in California, because it is a general study (as it was planned from the beginning that it was to be) and because California has, within its borders, beekeeping areas which vary from sub-tropical to cold mountain climate. The authors of the bulletin are R. L. Adams, Agricultural Economist, of the great Giannini Foundation for the study of Economics, and our own Frank E. Todd, of the Pacific Coast Bee Culture Field Laboratory.

At the bottom of the first page is note which says that the work of collecting the data from beekeepers was done by Frank E. Todd and E. L. Sechrist. And what a wonderful experience that was for the two of us! The Laboratory did not have sufficient funds to do the work as it had been planned and as we felt that it should be done. Expenses of the field work had to be cut, in some way, to about half. What to do? Todd and I discussed the matter again and again, finally coming to the conclusion that, instead of wearing good clothes, and stopping at good hotels, as we were supposed to do, we would lessen expenses by making use of our Ford closed truck and making a camping trip of it. So we got together our sleeping rolls, my tent and gasoline stove, a folding table and camp chairs, cooking kit, etc., and started out in November, 1933. The rainy and sometimes cold winter is not the best season for camping in

California, but it was the only time of year when we could hope that the busy beekeepers would be willing to talk with us for hours at a time, and answer our almost endless list of questions which were intended to pry into every corner of their business.

If convenient, we stopped at auto camps for the night, but often when up in the mountains or in sparsely settled desert districts, we camped out. We might decide after finishing work for the day, to drive until late at night, setting up our tent beside the road, or, if the weather was good, merely rolling up in our blankets. There were wonderful nights, sometimes, up in the mountains, among the pines, out under the stars, with the portable radio giving us news or music until we were ready for sleep.

At noon, we got a meal at a restaurant if we could, unless some beekeeper insisted on feeding us, but we could seldom spare the time to talk and be appreciative of the hospitality given us. Morning and evening meals we had out of our own grub box, cooked in a cottage at an auto camp, or wherever we camped for the night. Sometimes, to be sure, good beekeeping friends insisted that we stay with them and sleep in a good bed, and that was always delightful, except for one thing; that we always had our day's records to go over in the evening and check up on any omissions or errors. That just had to be done—if not just after supper, then before we went to sleep. Therefore, however much we would have enjoyed it, we usually excused ourselves after getting a friend's record, and made a night trip to the locality we would be working next.

We worked in every county in California driving over all kinds of roads and in all kinds of weather. But whatever the weather may be, one can be very comfortable in a closed Ford. If within reach of home at week end, or holiday, we planned to get home, if possible, but California was too big always to do this.

We finished in April, 1934, having traveled 125,000 miles, visited 250 beekeepers and taken records of 224 apiary businesses in 33 out of California's 35 counties, the beekeeping in the other counties being unimportant.

Previous Works on Economics

I began official work on the economics of beekeeping when in the Bee Culture Laboratory at Washington under James I. Hambleton, and worked in cooperation with an economist from the Bureau of Agricultural Economics at Washington. The first work was done in the Inter-mountain Region, including Wyoming, Utah, Montana, Colorado and Idaho. Early in the year, before bee work had begun, the two of us made our first round, selecting cooperators, taking inventories, and finding out what plan of management each beekeeper expected to follow during the season. It is quite enough to say that that trip was made in a well-worn Model T and that there are mountains and bad roads in those states.

The second visit I made alone, when the bees were building up in the spring but before honey storing had begun, to see the condition of the colonies and how the beekeepers were following out the plans they had given us, as well as to check up on the daily records they were keeping, each cooperator having been furnished with blank books in which he was to keep a record each day of the time worked and the kind of work he did.

The third visit I made during the time of extracting and when comb honey was being taken off; timing operations, checking on the efficiency of various operations and systems of work, often spending several days with one cooperator, in the apiary and in the honey house.

Three years of this work was carried on in the Inter-mountain Region, the object being, particularly to find what relation existed between the system of management and the cost of production.

This project having been completed, we next started the same program in the white clover region, including New York, Ohio, Michigan, Wisconsin, Minnesota, etc. But soon after that project was begun, I was sent to California to establish the Pacific Coast Laboratory at Davis, and the white clover work was completed by others.

A study of the cost of producing honey on the Pacific Coast was the major task to be undertaken there

but, as I said before, it was planned to make the Pacific Coast projects of value to the whole United States and not to the coast alone. We began our studies in Oregon, but, instead of having records kept over a series of years by cooperators, it was decided to use the "survey method," making only one visit to each cooperator, except in special instances. Then were taken his records for the past five years—honey crops, prices, and as much as he could give of costs, etc. This work was done in cooperation with the Oregon State Agriculture College, which furnished much of the transportation and an expert economist to look after that end of the work.

Having finished that project, we felt that we were almost ready to undertake the big job in California. However, before beginning the actual survey work, I felt it necessary to know more about conditions in the orange and sage honey areas which I had never had a chance to study. The northern orange areas in the thermal belts north of Sacramento are of little consequence in honey production although sometimes of local importance. The second small orange area, north of Fresno, is also not of primary importance although occasional good crops are secured there and it is used by a number of beekeepers as a migratory stop before a move to the later star-thistle flow in the Sacramento Valley.

But the southern orange belt is of great importance. Therefore, I spent several weeks during the time of the orange flow, studying conditions in that district, paying particular attention to the colony population and brood at the beginning of the flow, finding that the colonies were generally too small for profitable honey production. This was in the spring of 1933.

I secured information that was of much help in making up the final list of questions to be used in the survey. This list was based on the Oregon survey but fitted to California conditions and with some changes which our Oregon experience showed to be necessary. Then the lists were mimeographed and we began on the field work.

It may safely be said that when we took an inventory, in California, of the cooperator's equipment, had finished with our list of some 450 questions, and had discussed his beekeeping management and operations for 3 or 4 hours, until all of us were tired, we knew more about his beekeeping than he did himself.

Usually Todd and I worked separately, each getting a record forenoon and afternoon, and another in the evening if we could, after supper. Even with this intensive work, the great distances which had to be traveled in California, reduced our

average to about two records a day.

Mr. Adams went with us enough to familiarize himself with beekeeping, so that he could advise us and be better able to interpret the records for analysis. He also gave great assistance in preparing the schedules in order to bring out details of cost as well as management. We could not have had a better man to work with. When the bulletin reached me recently, and I saw what had been done with the great mass of material we had accumulated and how skillfully and efficiently it had been sorted and analyzed so that beekeepers can easily get a great deal of help from it, I felt that I must tell the world!

Although the survey was made in California only, and during a year of low yields and low prices, the material has been so well worked up that the bulletin is applicable to any year or to any locality in the United States.

Summary of Bulletin

Cooperators had, with few exceptions, more than 100 colonies. They were representatives of seven major honey-producing areas, each area containing counties with comparable conditions. These areas are (1) Imperial Valley, (2) southern orange belt counties, (3) southern coast counties, (4) San Joaquin Valley, (5) Sacramento Valley, (6) San Francisco Bay and cut-over redwood areas, (7) mountain counties. Excellent descriptions of these areas are given, with their honey flora, beekeeping conditions, number of colonies of bees in each area, and honey production. A map is given and the location of all cooperators in each area is shown.

There were 10 apiaries of under 100 colonies each, 113 between 250 and 500 colonies. The apiaries ranged in size from 62 to 5,000 colonies, the majority containing from 100 to 500 colonies.

The total production of honey was 6,080,135 pounds. The average production of honey for 5 years was 65 pounds per colony; for 1933, 47 pounds. Since the cost per pound of producing honey is markedly influenced by the quantity produced, it is possible that the costs are higher for 1933 than when production is normal.

Migratory Beekeeping

The survey indicates that beekeeping in California is 70 per cent migratory. Comparison of costs between migratory and non-migratory beekeeping is difficult because so many factors vary, but certain facts stand out. Average yields per colony showed an 11-pound advantage for migratory beekeeping, but this ranged from 5 pounds in some areas to 23 pounds in others. Average costs showed a three-tenths of one cent

migratory group. Where prices are per pound advantage for the non-below production costs, migratory beekeeping is at a disadvantage, but where prices are above production costs, migratory beekeeping is advantageous.

The increased expenses of migratory beekeeping are due to (1) higher location rents; (2) increase in labor requirements by one hour per colony at a cost of 35 cents; (3) increase in use of truck and automobile by 9.4 miles per colony at a cost of 58 cents.

It is important to note that the items which increase with migratory beekeeping are chiefly operating expenses—cash-out-of-pocket costs; therefore if the migratory beekeeper does not succeed in getting high yields and making a good profit, he is likely to go broke more quickly than the non-migratory beekeeper who may drag along for years without making a profit, particularly if he has some other small source of income to add to the family budget.

Average Yields and Costs

Average yields per colony varied widely, from under 20 pounds in 25 apiaries to 200 pounds in two apiaries. Average yields of more than 90 pounds were obtained in 41 apiaries.

Costs as computed consisted of both direct or operating costs and indirect or overhead costs and charges. Under operating costs were (1) supplies including everything a beekeeper uses; (2) labor, including family and hired, whether paid or not; (3) current expenditures, such as taxes, insurance, electricity, etc; (4) location rents whether paid in cash or honey; (5) use of trucks and autos, miles traveled, upkeep, gasoline, depreciation, etc; (6) apiary maintenance, including repairs, purchases of bees and queens, etc.

Under overhead costs, charges were made for use and depreciation of buildings, equipment, etc. Apparently, nothing seems to have been omitted.

The gross cost of producing 100 pounds of honey was \$6.57. This was made up of (1) operating costs, \$5.50; (2) overhead costs, 50 cents; (3) depreciation, \$1.15, making a total of \$7.15, with credits of wax, comb and chunk honey, etc., of 58 cents, leaving a net cost per 100 pounds of honey of \$6.57.

Operating cost per colony averaged \$4.67. The largest items in this are (1) labor, 40.6%; (2) use of truck and auto, 18.6%; (3) depreciation of equipment 14.3%.

Four chief factors affect the cost per pound—yield, labor, transportation, and investment.

High Cost and Low Cost Groups

A study of a selected group of 12 low cost and 12 high cost producers, but not including the extreme high

cost producers, showed the high cost producers traveling 6 miles farther per colony while producing only a third of the honey crop. Had their yields been equal, the transportation costs would still have been 48 cents greater per colony for the high cost group.

The average labor required per colony was 4.2 hours, but its range was from 1.0 to 15.1 hours. Labor per colony increased with increased yield, but a steady decline in labor costs per pound accompanied increased yields.

It is significant that the high cost producers used one-third more labor per colony than did those in the low cost group, yet produced only one-third the honey crop. This is essentially a management problem.

Prominent among the causes making for high and low labor cost appear to be (1) disease, (2) requeening, (3) number of colonies handled, (4) production per colony.

(1) Cases of disease were six times as great in the high cost as in the low cost group. It is significant that the same cause was a prominent labor cost in the Oregon survey. It is always safe to say that the presence of disease in any apiary will double the operating cost because of labor for inspection and disposal of diseased colonies, because it curtails the free interchange of equipment, which may also affect yield, and because much labor is used in caring for colonies which show no profit because of disease.

(2) More requeening was done annually by the low cost than by the high cost group. This means less labor because of swarming, and also more uniformity in colonies, this last being a prime factor in low cost for labor.

(3) The larger apiary businesses are, as a rule, in the low-cost-for-labor group. It is an open question whether the operator of a large business economizes on labor because his larger business permits of better organization and the use of better and more expensive equipment, or whether because of having a better organization and system of management, a larger business with the same amount of labor is permitted. It is largely a personal equation problem.

The greater number of colonies it is possible to operate efficiently with a given investment in equipment, the less is the per colony overhead. The lack of proper balance of investment due to small number of colonies increased the cost of production in many apiaries.

For effective work, one must have certain equipment, as I have said in earlier articles of this series on honey getting, but in order to use this equipment efficiently and profitably, it must be used to its capacity—the number of colonies must be great

enough to balance the equipment. This balance must be carefully adjusted, otherwise the operator gets into the high-cost class.

As I have said in another place, not until a man keeps cost accounts can he expect to maintain such a balance; he cannot know what it costs to do various kinds of work, or what he should do and what he should leave undone. As one prominent beekeeper told me, "Not until I kept cost records did I know that if I did not quite finish the work at one apiary in a day, but had perhaps an hour's work left, it did not pay me to return next day to finish the job. The cost of transportation and labor was too great. Therefore, when I now go to an apiary, I do the absolutely important work first, then the next most important, leaving any that can as well be done later until the end, and then if I do not have time to finish, I leave it until the next trip. No more double trips to do a bit of important work, or to do something not important just to complete the job."

(4) Production per colony is the fourth item in low or high labor cost. Besides depending on seasonal conditions not in the operator's control, it depends largely on his system of beekeeping management which, of course, includes the items of disease and requeening.

Although the analysis in this bulletin does not consider apiary management, which I have discussed in earlier articles, it does call attention to the devastating effects of low yields on production costs. Apparently profitable honey production requires average yields in excess of 70 pounds per colony. Beekeepers failing to make such yields can well afford to give careful study to their methods of management.

Certain local factors are not under the control of the operator. He can, however, choose good locations. He can supply his colonies with good queens and sufficient stores. He can prevent swarming and build up his colonies to honey-storing strength. He can control disease. He can do necessary manipulation and add supers at the proper time. He can see to it that his transportation mileage is not excessive. If he consistently does these things which he can do, he is likely to be in the low cost group and to make a profit out of his business, even if weather and plant conditions are not of the best.

In 41 apiaries the yields were in excess of 90 pounds per colony (20 pounds above the 70 pound minimum) and yet 23 of these had costs so high that no profits were made. The 10 per cent of apiaries showing a profit combined high yields with low production costs.

Cash Costs

Of the total gross cost per colony (\$4.67) only \$2.06 was money out of pocket, or cash cost. Of a net cost per pound of 6.9 cents only 2.3 cents, or one-third, was cash cost. The remainder of the cost was made up of unpaid labor, depreciation, and interest. The **low cash cost** appears to explain why so many beekeepers stay in business when failing to make costs. Many beekeepers consider only cash costs in determining the returns of their business. If they have a few more dollars in the bank at the end of the season, they figure that it has been a profitable one when, in fact, they may not have made wages for themselves and families, to say nothing of interest cost and depreciation. They must have wages to pay living costs and money to replace worn-out equipment or ultimately they will go out of business. It would be much better to make a real study of costs year after year and shut up the rat holes which carry off the profits.

The survey shows that, in general, the net costs of production range from slightly less than two cents per pound to somewhat over three cents. With such net costs, many operators feel that if they sell honey at five or six cents a pound they are making a good profit, whereas, if they knew the real costs, they would know that they were losing money.

How Can a Beekeeper Make a Cost Study for Himself?

He can use this bulletin to locate his weaknesses. The methods used to analyze costs are given in considerable detail. With this as a guide, the producer can study and compare his own business with that of the low cost group. Out of such a study he may locate unprofitable operations, misuse of time or equipment, or wasteful methods. He may find that he is traveling more than is economically advisable, or to have too great an investment in equipment for the number of colonies he operates. He may be doing work himself that he can hire done more economically, or he may be trying to make a living with too small an outfit.

By keeping records and studying his business, he should be able to locate points where changes in apiary management or organization would make his business more profitable.

The Persian Form of Esparcette

Onobrychis viciaefolia, forma *Persica*, *Shiryaev*

By EDWARD KELLNER,

Germany.



Persian esparcette, showing plant group and, below, height compared with walking cane.



IN the Annals of the Czechoslovak Academy of Agriculture, published by Prof. Dr. F. Chmelar and Dr. K. Mostovoy, at Prague, 1936, there is a bulletin on the "Many-cut Sainfoin, *Onobrychis viciaefolia* f. *Persica* Shir., and its Distinguishing from Local Czechoslovak Strains, *O. v. f. Europaea* Kul., in Laboratory Conditions." In this bulletin we read, in part: "...the young plants of the many-cut Fleischmann's sainfoin surpassed all other varieties in the number of leaves formed under the same conditions in the same time...the many-cut sainfoin f. *Persica* has hollow stems and produces great amounts of hay. Its modest requirements on the soil, its resistance to drought, freezing, diseases, and insects should give an impetus to growing in large areas this plant rich in protein..."

In the course of 1938, I more than once had occasion to see this form myself on experimental plots of the seed growing station in Wischenau, southern Moravia, and to talk with Mr. J. Teply, who conducts the practical experiments. Through the courtesy of the director of the station, Mr. F. Matz, agriculturist, I was able to take some photographs. The political conditions which lasted during September and October 1938 made it impossible to get snapshots of the third growth of the forma

Persica. Anyhow, these few photos, together with the following article,

will show clearly the superiority of this variety over the European type of sainfoin.

Southern Moravia belongs to the driest section of central Europe. Its annual precipitation is from 400 to 500 mm., the greater part of it falling as rain in autumn and spring, so that the middle of the year is usually lacking in rainfall. Therefore, we here speak of our climate as that of a "cultivated steppe." Wischenau is situated about 200 metres above sea level and has light, sandy, clay soils. The experimental plots were left entirely in natural conditions; that is, neither stable manure—more than in regular turn—nor artificial fertilizer was given, nor were they irrigated. To avoid cross-fertilization between *Persica* and *Europaea*, which also was grown for experiment, the plots for both were sufficiently distant from one another. The seed used in the experiment was grown by Mr. R. Fleischmann, agriculturist, director of the government experimental station at Kompolt, Hungary, and is said to be of Azerbaijan origin, according to scientific classification. It is a many-cut, Asiatic oicotype of *Onobrychis viciaefolia*.

The seed was sown by hand into shallow furrow and slightly covered with soil, the furrows being kept



Field of Persian esparcette. Kellner urges trial of this plant for honey production.

about 30 cm. apart. No cover plant was sown, as for instance with small grain, on account of the fact that the *Persica* flowers during the first year. The sowing was done at the regular barley and oats sowing time, in the last days of March and the first days of April. Hoeing from time to time kept the plots free from weeds, at the same time loosening the soil and helping it to retain its moisture.

I visited Mr. Teply about the end of April 1938. There were experimental plots of some indigenous European types of sainfoin two years old and one plot with a 1937 stand, and another with a 1938 stand of the Persian form. The plants were not large enough at that time to be conspicuous, but already there showed a great difference in the habit of growth between the European and the Persian forms. The European, though showing starting growth in its leaf rosettes, was without even the Persian type was apparently going on vigorously in its growth: the leaf slightest sign of a stem; whereas the rosette showed a greater number of larger leaves, and most striking of all, each plant had a stalk from 3 to 8 cm. high. To those who know sainfoin, this fact is almost incredible when considered in relation to the season. There is also another remarkable difference: relatively more plants were winterkilled on the European plot than on the Persian plot. The *Persica* seemed to have more winter resistance, too.

My next visit to Wischenau was about May 25. I passed a plot which I merely glanced at because it was the normal time for sainfoin to flower. Imagine my surprise to be told that it was the two-month old Persian type which was flowering just before my eyes! Mr. Teply called me back, assuring me that it really was the 1938 plot, sown just two months previously. One of the photographs shows this extraordinarily vigorous growth. As an object for comparison, I pushed an ordinary walking stick 105 cm. high into the soil amid the flowering plants (5 cm. of the length of the stick has to be deducted). Two months after seeding, the plants of *Onobrychis viciaefolia*, *forma Persica*, Shiryayev were grown to a height of more than 100 cm. and were flowering. To be sure, each plant was slenderer in its habit of growth than plants of the same type on the 1937 plot; also, it showed fewer stalks and fewer leaves per stalk. As the first growth is never used for seed, it was cut soon after my visit, at the start of the flowering, to save the plants' vigor for setting seed on the second bloom. A few days later the European and the 1937 Persian plots were cut also.

Fortunately, Mr. Teply has been a beekeeper for more than twenty years, and a very intelligent one,

too. Therefore it was only natural that, in the course of his experimental work with sainfoin, he kept his eyes steadily on the honey yielding capacity of the plants. According to his observations, the *Persica* is visited by the bees as often as the *Europaea*. Whether it yields nectar in the same quantity will have to be proved by practical cultivation on the farm. As yet, there is no reason to suppose that it should not.

My third visit occurred about June 12. On the way to Wischenau I saw fields of our indigenous "double-cut" European variety, with a dried out and meager looking second growth of about 2 to 5 cm. Wischenau kept a new surprise in reserve for me. Despite the same precipitation—just a light shower at the first cutting, here and in Wischenau—the 1937 as well as the 1938 stand of the *Persica* showed an equal height of from 15 to 20 cm., relatively succulent stalks, and a vigorous growth. This was a convincing demonstration of the high drought resistance of the Persian type.

At the time of the grain harvest, I paid my fourth visit to Mr. Teply. It was on the 10th of July, 1938. Up to this time, there had been, here and in Wischenau, two light rains, and the plants showed an increase in height of from 5 to 10 cm. over the first growth in May. There was a great increase in the number of stalks and leaves per plant. The plots as a whole made the impression of a more compact mass of green fodder than in May. An abundant setting of seed was already to be seen at this time. This fact, together with Mr. Teply's statement that the flowers were visited as freely as in May permits favorable conclusions as to the capacity of nectar yielding of the second bloom under normal conditions. To make this point clearer, I should add that the second growth of the double-cut European type is of no importance at all as a main nectar source. Stalks and leaves were sparse, though later there had been two light showers after the cutting was done. The mass of green fodder or of hay is without any doubt by far greater in weight with the *Persica*. It is to be regretted that no actual figures can be given on this detail. Also, in the *Persica* the hollow stalk, despite its height, is not woody but tender, the single leaves being larger and more in number per plant.

After a humid August, I had occasion to see the experimental plots for the last time, late in September. Unfavorable weather and political conditions of the same kind made it impossible to take photographs this time. The third growth was weak, yellowish, and scarcely 20 cm. high, some of the plants lacking any stalk at all. The plants on the 1938 plot,

and on the 1937 plot as well were exhausted by the previous setting of seed. This is natural with sainfoin of which the common double-cut variety is allowed to stand on the field for only two cuttings and then is plowed under. As to managing the Persian form for fodder alone, Mr. Teply assured me out of his experience of 1937 that, cautiously estimated, it may give three normal cuts in years with normal precipitation and four cuts in years of more rain than usual, whereas the European form gives one good cutting and a second very meager one. This, of course, was the natural reason why, during the last decades, sainfoin in central Europe lost so much ground to alfalfa.

Summarizing with due caution, it is allowed in the present state of experiments to establish the following facts:

1. The *forma Persica* gives the farmer twice as much and eventually more forage in green fodder and in hay than the *forma Europaea*. Besides that, it shows "...modest requirements on the soil...resistance against drought, freezing, diseases, and insects..." and is a plant "rich in protein." To this may be added another especially valuable trait: it is more modest as to its requirements for lime content in the soil than the more highly cultivated *forma Europaea*.

2. The nectar yielding capacity seems to be the same. The flowers of the second and eventually the third growth may be of some value, at least as a second-class honey source.

Therefore it can be recommended that the farmer, and especially the farmer-beekeeper, make an earnest trial of *Onobrychis viciaefolia forma Persica* Shiryayev. It is not incredible that this type of sainfoin—perhaps a nearer relative to some original wild form—may also do well in countries like North America where the European type is unsuccessful. The possibility of its being adaptable is especially sound if original seed is used out of the home region of this oicotype—southwestern Asia, Caucasasia, northeastern Turkey, and northwestern Persia. Some day it may prove as valuable for American agriculture as did the Russo-Asiatic hard wheat types brought by the unselfish genius of Alfred Carlton to his ungrateful country.



President Bressler of Rhode Island State College Finds Beekeeping a Relaxation

By RUTH HODGSON,

Wisconsin.

All the world's a stage,
And all the men and women merely players.
They have their exits and their entrances,
And one man in his time plays many parts.
(As You Like It—Shakespeare.)

Pres. Raymond G. Bressler, Rhode Island State College

MEN generally become beekeepers for one of two reasons, either because they want an interesting hobby, or to increase their income. R. G. Bressler, now president of the Rhode Island State College, had an entirely different reason. In 1920 he was with the Pennsylvania State College and being counsellor for a

group of about 20 disabled war veterans he had to supply a work-experience opportunity for them. He decided bees would be ideal. He had been interested in bees since childhood and had taken several courses in apiculture at Texas A. and M. which had furthered his interest.

He selected a freshman student instructor to work with them and then purchased several nuclei from the Jasper Knight Apiaries of Alabama. They followed Dadant, A. B. C. & X. Y. Z. of Bee Culture, and studied all the bulletins and pamphlets they could get. They were so interested that they decided to ex-



Air view of Rhode Island State College at Kingston.



Green Hall, Administration Building and Library, at the College.

pand and purchased some local bees and requeened them.

Mr. Bressler heard of an apiary that could be purchased at a bargain price. The bees were supposed to be so hot, Mr. Bressler says, that the doctor had told the owner that unless he got rid of them they would finally kill him. There were fifteen hives in this apiary. Financially the purchase was a bargain but inspection laws were not so strict then and those bees brought foulbrood with them. They were the crossiest bees the boys had ever come in contact with and Mr. Bressler's old apiary of fifteen fine colonies seemed to be completely demoralized by them. Though they took care of those diseased bees as soon as they discovered them the bees had had time to spread the disease to some of his good colonies and it took two years to clear it up.

As a financial venture this would have counted as a failure but as Mr. Bressler was doing it as an educational project it was probably better than if they had had clear sailing.

The funniest experience during this venture happened one Saturday when Mr. Bressler took a young Czech along with him when he went out to the apiary to cut out queen cells. This young Czech had served both in the Austrian and the Russian armies and had retreated through

Siberia with the Czech contingency and finally got back to Czechoslovakia by way of Vladivostok, the Panama Canal, and several European countries. Arriving home he emigrated to the United States after he was demobilized and finally became a member of Mr. Bressler's group. He had studied apiculture in Bohemia and had an excellent talking knowledge. When he went out to the apiary he was scantily dressed and insisted that the only thing he needed was a veil. Mr. Bressler started at one end of the line and the Czech at the other. "In about five minutes" Mr. Bressler says, "I heard such statements as these: 'Oh, my! My goodness! That was a hot one!'" As Mr. Bressler looked up he saw the Czech slapping at the bees on his arms and a few seconds later saw the Czech throw down his smoker and start to run—the bees after him. He never went into the apiary again. He decided he didn't know as much about bees as he had thought he did.

In 1927 Mr. Bressler was appointed Deputy Secretary of Agriculture for the state of Pennsylvania and so he sold the apiary which had increased to 30 colonies.

If it were not for the central location of his present residence Mr. Bressler says he would have bees now, just a colony or two as a hobby. He believes that bees do more to re-

lax a man who is engaged in professional work than anything he knows of. He says: "The work from a physical standpoint is not difficult, and the inspiration of witnessing the activities of the bees does something to a man's reflective nature that very few other occupations do."

At one time Mr. Bressler had an observation hive that he kept in the window of his office. He did not study them scientifically but just watched them as an amateur to note their going and coming. Friends used to gather in his office and watch them. Sometimes they would sprinkle a powder on some of the bees and then timed them to see how long it would take them to go to their source of honey and return. He says: "A simple operation but one that stimulated the imagination."

The student instructor who worked with Mr. Bressler at Pennsylvania State put himself through college with the proceeds from his own apiary and the income from his teaching. He is now extension professor of apiculture at Pennsylvania. Mr. Bressler says: "In my opinion he is one of the fine young men in apiculture."

Mr. Bressler has probably inter-
(Please turn to page 541)



Food of the Month

A Tested Recipe

Honey Cream Pie

By MRS. ADAM BODENSCHATZ,
Illinois.

2 cups milk
1/3 cup light honey
2 tablespoons corn starch (make
into a paste with 2 tablespoons water)
2 well beaten eggs
1/8 teaspoon salt
1/4 teaspoon vanilla or lemon ex-
tract

1. Scald the milk and honey in a
double boiler.
2. Add the corn starch and water.
3. Cook until thick stirring con-
stantly
4. Remove from fire and beat in
the beaten eggs.
5. Put back on fire and cook until

thick.

6. Remove from fire and add salt
and flavoring.

7. Put in baked pie shell and cool.

8. When ready to serve cover
with 1 cup cream which has been
whipped and 1 tablespoon light honey
added and whipped again.



IF you have a favorite honey recipe we will be glad to test it for you. If it has general appeal and works as well for us as it has for you, it will be published. This recipe by Mrs. Bodenschatz was tried in our kitchen and the picture is of the pie as it actually appears. You may use this recipe with confidence that the results will be satisfactory.

Bressler Finds Beekeeping A Relaxation

(Continued from page 539)

ested more men in bees than many regular beekeepers. He helped a few of our veterans re-establish themselves in society.

Mr. Bressler is not a beekeeper and doesn't even keep bees at the present time, but bees still interest him and always will. When the opportunity comes he will again allow himself the pleasure of observing the activities of the only insect man has been able to domesticate and whose energies he has been able to utilize for his sole benefit.

When I wrote Mr. Bressler and asked him whether he could give me any photographs of the classes in bee-culture which he conducted for ex-soldiers he answered me saying he could not find any photos and he concluded his letter as follows: "I am especially sorry about this, because I like to have my name associated among those who are interested in apiculture even though I am no longer active in the field. I consider it a high compliment to have it said that 'He was a beekeeper.'" This from a man of Mr. Bressler's position is rather a nice compliment to us beekeepers.



A Good Hive Stand

Can you see the outline of the rabbit which is taking shelter under one of the hives near the center of this scene? Hive stands such as mine provide shelter for rabbits (if you want shelter for rabbits), but they also keep the hives away from contact with the ground. The stands, which hold three hives each, are rest-

ing on two concrete blocks set in the ground. This gives me a permanent stand, the legs of which do not rot. This yard is laid out in four rows, five stands to each row—a capacity of sixty colonies. Unexpected swarms at times increase the number and then extra stands are set in to accommodate them until we get time to move the colonies to the country to other outyards. Our home yard is within the borough and we try to keep it a little more uniform than those in the country, where people are not always passing.

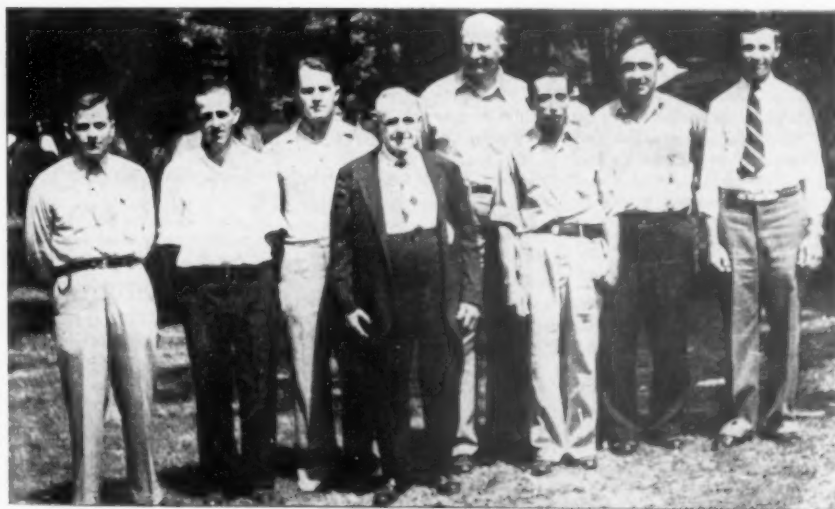
The case over the hives is the old Danzenbaker winter case, which was in the foreground thirty-four years ago when I started beekeeping. I began with the Danzenbaker hive, but later I adopted the deeper 10-frame hive, with the standard frame of today. I held on to the deep cover, as I like it for several reasons. I believe it protects the colony from cold in the winter and from heat in the summer. When I am working at the bees, I turn it upside down and hang the frames in it as I take them out of the hives, checking on queen cells or clipping queens.

As to the rabbits, we have them; and they have become rather tame, nesting in the summer under the hives.

D. C. Gilham,
Pennsylvania.

—ABJ—

Seven Illinois Deputies



From left to right, the picture shows Chief Apiary Inspector, Carl E. Killion, of Paris, Illinois; with deputies John Folks, C. P. Jankowski,

J. R. Wooldridge, S. S. Claussen, Ted Wellner, Edw. Heldt, and V. E. Rocke. Seven deputies of the thirty-four in the state of Illinois.

The Editor's Answers

Watering Places

What can I do about trouble I have had at two outyards from bees bothering the stock at watering troughs? OHIO.

Answer.—Put out good sized tanks of water with floats or other footings for the bees, so they will not drown. Bait them to the tank with small cotton balls covered with oil of anise. If the bees are first located and become accustomed to going to the watering places in the neighborhood, it is difficult to get them to stop this habit.

—ABJ—

Fumigating Comb Honey

I have seen material in the Journal about fumigating comb honey with sulphur. How is it used? Will sulphur leave a taint on the honey? How much should be used to the super? Is it the best fumigant? I used paradichlorobenzene last year, but it leaves a taint. OHIO.

Answer.—Sulphur fumes are better than the paradichlorobenzene. Use powdered sulphur or sulphur candles in a metal pan on the floor. Place an empty super around them and stack your comb honey above. Light the sulphur and let the fumes go up through the stacks. After several hours the combs should be aired for a little time. Then the honey may be wrapped and packed before the moth have a further chance to visit the supers. There will be no danger from taint.

—ABJ—

Cyanide

I expect to use cyanide to kill bee moth in my drawn combs, and I have been advised to get a gas mask. Where may one be obtained and how much is it? IOWA.

Answer.—You may secure a gas mask from your hardware store or sporting goods dealer. The cost varies. We have three masks any of which may be used by the person handling cyanogas in a closed building. We do not use the mask when handling the cyanogas in the open air.

—ABJ—

Provisions for Wintering

I expect to winter bees out-of-doors in pairs with shavings and roofing paper, but I am short of supers and drawn comb, and also I would like some buckwheat honey to sell. Would you consider it advisable to winter these bees in one story? I would feed those needing it in the spring when the weather permits, and give them a second hive body for brood rearing. Is 80 pounds a standard weight for hives for sufficient stores for winter? NEW YORK.

Answer.—Twenty years ago practically all bees in 10-frame hives were wintered in single stories, so, with some care in making sure that your colonies have ample stores in the fall, and an abundance of food in the spring, they can be wintered in single hives. We would recommend a super of insulation above the bees. Eighty pounds should be a good weight for bees going into winter. A 10-frame hive with bees without stores usually weighs about 35 pounds. The hive, therefore, with an eighty pound weight, would have about 45 pounds of stores for winter which is sufficient.

Caucasians on Red Clover

Can a long-tongued Caucasian bee work red clover? TENNESSEE.

Answer.—Caucasians do at times work red clover, but they cannot be depended upon to do it constantly just because of their long tongue. Efforts have been made in the past to produce bees with longer tongues, but this quality has never been fixed and we do not believe you can depend upon any bee of any race at the present time for the pollination of this plant.

—ABJ—

Disturbance From Bee Stings

I have handled bees for five years, but during the latter part of last summer I suffered from an itch and rash around my neck and face, even on the eyelids and hands. Was it caused from handling bees, do you think, or from flowers or plants? OHIO.

Answer.—If you worked bees for five years without signs of your trouble appearing, undoubtedly it is the result of some other cause. It occasionally happens that a person especially allergic to bee stings breaks out in a rash when he is stung. These cases are rare and are connected, of course, with the poison in the bee's sting. Perhaps some one of our readers will be able to suggest a possible cause and a possible cure.

—ABJ—

Resistant Strains

Is there such a thing as a strain of bees resistant to American foulbrood? OREGON.

Answer.—There are strains of bees resistant to American foulbrood. Most inspectors of bees find colonies in the midst of a foulbrood infection which seem never to have the disease themselves. Nobody has ever been interested enough to take this stock and breed from it to see if resistance is passed on from one generation to another until a number of years ago, when we established an experiment to see if this resistance was perpetuated. We succeeded in interesting Iowa State College in it, and the work was carried to the point where it was proved that resistance to American foulbrood existed to the third and fourth generations but that all the daughters under natural mating conditions did not show the same degree of resistance to their bees.

Some showed a resistance which was practically 100 per cent. Others showed resistance which was little better than 25 per cent. It has not been possible yet to produce a bee which is constantly and dependably resistant to American foulbrood, and those that are resistant are often not of a stock suitable for honey production.

This experiment has been turned over to the U. S. Department of Agriculture, under James I. Hambleton, who has enlisted the cooperation of Louisiana, Texas, Wisconsin, Ohio, Iowa, and Wyoming in a nation-wide search for a bee which is resistant and which can be relied on in the control of American foulbrood.

Checking the Spread Of A. F. B.

Each year I gas my bees and buy new ones in the spring. This year for the first time I have seven cases of foulbrood in my 230 colonies. It has me badly worried. If I remove infested hives after dark, as soon as found, and if I wash my hands and hive tool after working every hive, I suppose that is about all I can do to check it. Will propolis on the hive tool spread the disease from one hive to another? NORTH DAKOTA.

Answer.—Our recommendation would be that you isolate the diseased colonies as fast as they appear and reduce the entrances, thus lessening the danger of spread of the disease. They can then be snuffed out when fall comes, combs melted up, hives scorched out, etc. Of course, present procedure is to burn everything except the hives. These are scorched out. With a small number of diseased colonies in a large group, that is our practise here. For two or three years we have shaken no colonies whatever, burning everything rather than take the chance of spreading disease. You can carry disease by the propolis on the hive tool, and it should be scorched after every examination.

—ABJ—

Section Foundation

When I took the super from the hives I found some of the section foundation not pulled out and some partly pulled out. Shall I put these supers back on the hives in the spring or shall I cut foundation out and remelt it. This is my second year with bees and do not know if foundation deteriorates. ILLINOIS.

Answer.—Whether or not you can use the sections with foundation will depend considerably on how long these sections were left on the hive after the honeyflow stopped. Foundation never does deteriorate but there is always the possibility that the sections themselves become travel stained and glazed over with propolis so that they would not make No. 1 sections next year. It will likely be necessary for you to give them close examination because if the foundation is no good, likely the section also will be travel stained to the point where you cannot use it. We believe, however, with care that you should be able to use the sections and foundation although it might be best to go carefully over the supers and revamp them by cleaning up all signs of propolis and spraying them for next year.

—ABJ—

Carbolic Acid

I have before me a booklet suggesting the use of carbolic acid in the transferring of bees quickly. May I have full particulars how to use the acid. WISCONSIN.

Answer.—The carbolic acid has been used for several years for the taking off of honey from the hive. Some beekeepers also use it in transferring bees quickly.

In order to do this, it would, of course, be necessary to use the same principle as with the taking off of honey and that is to have your empty colony to which to transfer the bees below, everything tight between and then put your cloth carbolic cover on top of your hive to be transferred. The bees would then run down from the upper hive directly into the lower one. After all the bees have been driven down, you could then do as you pleased about the old colony. If it was a box hive, you probably would want to put a queen excluder between the two colonies and leave the old box hive above the other one until the brood hatched out.

Meetings and Events

"We Can Win Through Cooperation" National Beekeeping Conferences Program Honey Producers' League, American Honey Institute and Affiliates

Tuesday, November 7, 1939
American Honey Producers' League

Geo. W. Bohne, Presiding

8:00 to 9:30, Registration—The Native Sons Hall, 924 Eleventh Street, Get-Acquainted Hour.

9:30—Convention called to order by T. C. Burleson, Vice-President. Introduction of the Presiding Officer. Invocation.

Address of Welcome

The City Mayor—Tom B. Monks.

The Secretary of Agriculture—

W. B. Parker

Sacramento County Executive—

Chas. Deterding

Response—Geo. W. Bohne.

10:00—President's address—Geo. W. Bohne.

10:15—Report of secretary-treasurer—Cary W. Hartman.

Appointment of committees, committee announcements.

Introduction of out-of-state delegates.

10:45—The Beekeeping Industry and Its Needs—E. Guy LeSturgeon, Editor, Beekeepers Item.

11:15—The Influence of Warehousing on Honey Marketing—Wendell Shore, Hamilton and Company, Los Angeles, California.

11:45—Announcements.

Noon Recess—Scheduled Luncheons
American Honey Institute Directors, Hotel Senator.

American Honey Producers' League Directors, Hotel Senator.

Apiary Inspectors of America, Wilson's.

California Honey Promotion Committee, Wilson's.

Ladies Auxiliary Tea, Wilson's.

Afternoon Session

2:00—Why Honey is Selling at the Present Levels—Harold J. Clay, Marketing Service, U. S. D. A., Washington, D. C.

2:30—Some Fundamental Principles in Selling Honey—T. W. Burleson, Waxahachie, Texas.

2:50—The Honey Channels of Trade, D. B. Bradshaw, Bradshaw & Sons, Wendell, Idaho.

3:15—The Use of Honey in Making Jams, Jellies, and Candied or Glaced Fruit—Geo. P. Walton, Carbohydrate Research Division, Washington, D. C.

3:40—Nectar Concentration of Honey Plants—Geo. H. Vansell, Pacific Coast Bee Culture Field Station, Davis, California.

4:00—Committee reports and announcements.

Suggested sight-seeing tours.

5:30—California Apiary Inspectors' Dinner, Wilson's.

Evening Session

The Native Sons Hall, 924 Eleventh Street, 8:00 P. M., Open to the public.

Speakers—Jas. I. Hambleton, Director, U. S. Bee Culture Laboratory, Washington, D. C. Subject—The Position of the Honeybee in Relation to Our General Welfare.

E. R. Root, Editor, Gleanings in Bee Culture, Medina, Ohio. Subject—Honey as a Food and a Medicine.

Demonstration in handling live bees—J. E. Eckert, University of California, Davis, California.

Music—Free samples of honey.

Wednesday, November 8, 1939
American Honey Institute

M. S. Stone, Presiding

8:00—Ladies Auxiliary breakfast, Wilson's.

8:00 to 9:30—Registration, The Native Sons Hall, Get-acquainted hour.

9:30—Convention called to order by C. M. Lush. Introduction of the presiding officer.

President's address—M. S. Stone. Report of the secretary-treasurer—M. J. Deyell.

10:00—The Organization, Management and Future Possibilities of the American Honey Institute—Lewis W. Parks, G. B. Lewis Company, Watertown, Wisconsin.

10:15—The Work of the American Honey Institute—Mrs. Harriett M. Grace, Institute Director, Madison, Wisconsin.

10:45—The California Honey Promotion Committee—C. E. Lush, Chairman, Orange, California.

11:15—Personal Impressions of Recent Changes in Beekeeping Practice—E. R. Root, Editor, Gleanings in Bee Culture, Medina, Ohio.

11:45—Committee reports and announcements.

Noon Recess—Scheduled Luncheons

Afternoon Session

2:00—One Thousand Ideas, or the Answer to the "Honey Blues"—Geo.

"B." Wright, San Diego, California.

2:30—General Symposium of Honey Marketing Problems, Talks limited to five minutes for each speaker.

3:00—The Work of the Bee Culture Laboratory—Jas. I. Hambleton.

3:15—Federal Aid in the Eradication of Bee Diseases—C. U. Duckworth, State Department of Agriculture, Sacramento, California.

3:45—Pollen in Relation to Hive Economy—Frank E. Todd, Pacific Coast Bee Culture Field Station, Davis, California.

4:00—Committee announcements.

6:30 P. M.—Annual Banquet—Music—Entertainment—Hotel Senator.

Thursday, November 9, 1939
General Session

Harry Hill, Presiding President, California State Beekeepers Association.

8:00 to 9:30—Registration, The Native Sons Hall, Get-acquainted hour.

9:30—Convention called to order—Harry K. Hill, Willows, California.

Committee reports and announcements.

9:45—The Ladies Auxiliary—Mrs. Irene W. Duax, National President, Chicago, Illinois.

10:15—Greetings from Canada—A. W. Finlay, Provincial Apiarist of British Columbia.

10:30—Some Beekeeping Problems in Oregon—H. A. Scullen, Oregon Agricultural College, Corvallis, Oregon.

10:45—The Sioux Honey Association, Edward G. Brown, Sergeant Bluff, Iowa.

11:00—The Declining Practice of Comb Honey Production—Carl E. Killion, State Apiary Inspector, Illinois.

11:15—(Subject to be announced) S. A. Jones, Marketing News Service, Washington, D. C.

11:40—Report of Committees.

Noon Recess—Scheduled Luncheons
The California Ladies Auxiliary (All ladies invited to attend)—Wilson's

Afternoon Session

2:00—(Subject to be announced) American Bee Journal, Hamilton, Ill.

2:20—Symposium on the Supercedure of Queens. Talks limited to three minutes by queen breeders and honey producers.

3:20—Committee reports.

4:00—Announcements.

River Lines Delta Queen or Delta King sail for San Francisco and Treasure Island at 6:00 P. M.

Friday, November 10, 1939
Treasure Island

Assembly, Agricultural Hall Auditorium at 10:00 A. M.

Address of welcome by Dr. Geo. H. Hecke, Administrator, Agricultural Exhibit.

Special announcements concerning exhibits you will want to see.

49th Annual Convention Illinois Beekeepers' Association St. Nicholas Hotel, Springfield, Illinois November 17 and 18, 1939

Program—Friday, November 17

Morning Session

9:30—Call to order.
Reading of minutes of last meeting.
Address by the president—O. G. Rawson.

Appointment of committees.
Secretary's report—Hoyt Taylor.
Treasurer's report—W. W. Osborn.
Report of Illinois Honey Foundation—Mrs. Stella L. Gill.
Miscellaneous business.

Reports from representatives of local associations.

11:00—Report of Apiary Inspector—Carl E. Killion.

11:30—State of Illinois and Illinois beekeeping—B. W. DeBord, Assistant Director of Agriculture.

12:00—Lunch.

Afternoon Session

1:30—Some Statistics on Production and Use of Honey in U. S.—W. G. Duckwall.

2:00—A Year's Progress with American Honey Institute—Mrs. Harriet Grace, Director.

2:30—What Is Pure Honey? Why Should We Filter?—Edwin F. Peterson.

3:00—Recess.

3:15—Comb Honey and Its Place in Beekeeping—Carl E. Killion.

3:45—Future Beekeepers—Leroy Stockdale.

4:15—The New Bee—H. C. Dadant.

4:45—Why We Should Have Standardized Grades in Illinois—V. G. Milum.

5:15—Two Queen Management—Clifford Wilder.

Banquet

Same excellent St. Nicholas service—Music and entertainment by Beekeepers of Illinois—Honey Production contest.

Banquet Menu

Spiced Honey Cider Cocktail
Fish Ham (with honey)
Sweet Potato Puff (with honey)
Mashed Potatoes Buttered Peas
Assorted Rolls Butter
Gherkins, Celery, Radishes
Vanilla Ice Cream with Honey Fudge Sauce
Honey Yellow and Devil's Food Cakes

Program—Saturday, November 18

Morning Session

9:00—Business meeting.

Discussion and Vote on Proposed Amendments of Constitution.

Election and Installation of Officers.

Report of Resolutions Committee.
Adoption of Resolutions and Other Business.

10:00—Recess.

10:15—What of Honey Prices—A. I. Root (Representative).

10:50—Experiences of An Inspector—W. E. Friedrich.

11:30—Honey House Equipment—R. A. Grout.

12:00—Lunch.

Afternoon Session

1:00—Contacting Beekeepers at State Fair—C. A. Olson.

1:30—General Discussion.

Unfinished Business and Adjournment.

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Secretary Rahmlow at Manitowoc

H. J. Rahmlow, secretary of the Wisconsin State Horticultural Society and Wisconsin Beekeepers' Association, addressed a meeting of the Manitowoc County beekeepers on September 28, discussing the experimental work of the Central States Bee Laboratory in Madison. He stated research has disclosed the falsity of the belief that bees hibernate during the entire winter. He explained bees begin brood rearing in January, with resultant strong colonies in early spring, provided plenty of pollen is in the hives.

Soy bean meal has been used successfully as a supplementary feeding, but it cannot be used as a com-

plete substitute for pollen. Moving pictures were shown illustrating methods of wintering bees and of feeding them.

Fred Mack, Reedsville, secretary of the association, was named delegate to the state convention at Ripon October 26 and 27.

H. C. Brunner,
Wisconsin.

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Wisconsin Fair

The bee and honey building at the Wisconsin State Fair, August 16 to 24, was one of the main attractions of this year's exposition, which drew a record crowd of 630,954 people.

James Gwinn, Madison, superintendent of the exhibit, declared that while the quantity of the 1939 honey crop was not as great as that of the previous year, the quality was superior. Mr. Gwinn estimated the state's yield this year at 8,000,000 pounds.

H. C. Brunner,
Wisconsin.

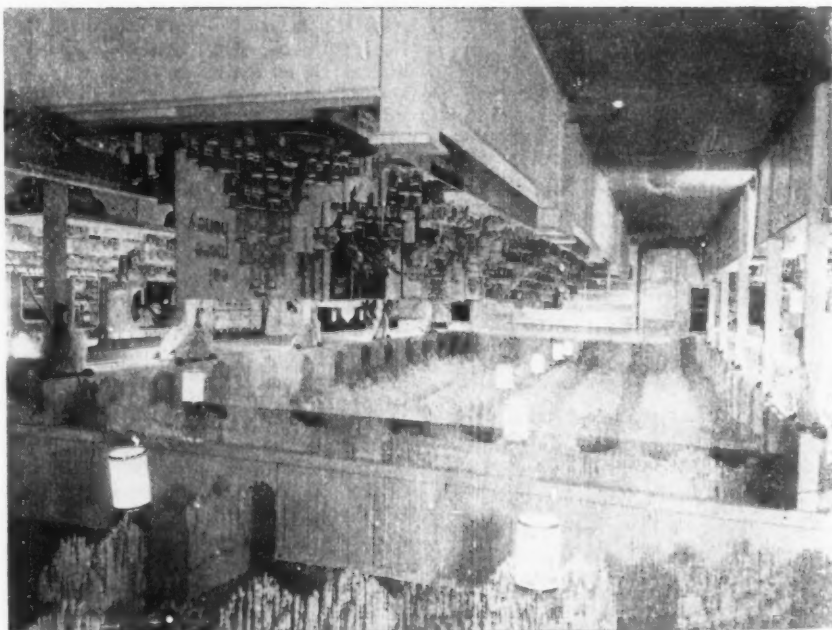
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Rusk-Sawyer Tour

The Rusk-Sawyer Association in Wisconsin, conducted an inspection tour August 27 of five apiaries in the two counties, taking in the apiaries of Mrs. Charlotte Carrington, Ingram; Knudson's Ladysmith apiary, Ladysmith; Nathan Paddock, Bruce; Frank Valesh, Couderay; and W. E.

— ABJ —

Winnebago County Fair Exhibits



The exhibitors at the Winnebago County Fair at Oshkosh August 29 to September 1, included the Schultz Honey Company, Ripon, Wisconsin.

The picture of their exhibit is shown here. A crowd estimated at 75,000 persons turned out for the fair.

H. C. Brunner, Wisconsin.

Kewanee Turns Out



When it comes to getting publicized the subject of bees, their home life, and their habits Mr. A. A. Anderson, of Kewanee, Illinois, and Deputy Inspector Elmer Kommer share the honors. The above photo shows one of three groups of Kewanee school children who learned something concerning bees through these representatives. These men did not have to go to the Kewanee schools to talk about bees. No, siree! These boys and girls, 210 of them, and their teachers came to Mr. Anderson's apiary. As each group assembled hives were opened and talks were given; these discourses explained the life of the bee. When they finished Inspector Kommer and Mr. Anderson were greeted with a barrage of questions, intelligent questions showing the keen interest of every one of the 210 children.

These meetings at the Anderson apiary are an annual affair, this being the second in the series. It is impossible to measure the benefit that such a meeting will bring. But one thing is sure. If anyone of those Kewanee boys or girls hears anyone make a remark about a "King Bee" or "manufactured honey" it is very probable that that person will immediately be informed that there is no such thing.

Others at the meeting were Mr. and Mrs. M. G. Dadant, Edwin Kommer, Fred Ball, Elmer Peterson, and Carl E. Killion.

Essays were written by the pupils of the various schools and submitted

to Inspector Kommer for grading. We give the following first prize essay. Outside of perhaps a little optimistic valuation of the laying ability of the queen, we think that William Ball, the winner did a mighty nice job. Here is the essay:

William Ball, age 13, Franklin Junior High.

Bees

Bees are interesting insects. They are unlike humans. Humans are mad if they have to work and bees are mad if they can't work.

There are three kinds of bees, the queen or fertile female, the workers or unfertile females, and the drones or male.

Worker bees live about six months during the slack season, but live only about 6 weeks during a honeyflow.

The queen lays about 10,000 eggs a day. The eggs that the worker bees lay hatch out drones.

A bee from one hive cannot go in another hive because there are guards at the entrance.

The beekeeper puts on a super in the spring and puts on supers when the other one is nearly full.

Sometimes the bees swarm because they haven't got enough room and some times they swarm because they have two queens.

When a queen mates she mates for a lifetime.

There is a very contagious disease called foulbrood. The state has hired bee inspectors to try and kill out this disease and they have been doing very well.

ever attempted in South Carolina. Prof. David Dunavan and Ned Prevost worked hard to make it a success and their efforts were well repaid by so many attending. D. W. Watkins, Extension director, J. A. Berly, state apiarist and C. L. Adams, state chemist, also did their part. Mr. J. J. Wilder, of Waycross, Georgia, made an enjoyable talk the first day on beekeeping and his experiences with bears and bees.

South Carolina beekeepers adopted a label to be used only by state association members and is called the Palmetto State label. They have also adopted a uniform pack of different size jars and cans. Their plan is similar to that of associated apple, peach and orange growers. The outcome of this program will be closely watched by other state associations, as it is the first state-wide marketing program of honey attempted. Mr. A. H. Ezell, who is one of the sponsors of the plan, made a talk on the use of this label and on the cooperation of beekeepers.

A new beekeeping industry was born when T. P. Gaskins, president of the state association, made a talk on selling drone brood for fishing purposes. In the past this subject has been laughed at, but after hearing Mr. Gaskins, those present decided it was no longer a laughing matter. It can be made a profitable side line of beekeeping. In the past twelve months Mr. Gaskins has sold over \$250.00 of drone brood. He says it is no trouble to get \$1.00 for a frame of drone brood, if the buyer has the fishing fever.

Mr. Prevost showed one of his South Carolina bee pictures. A business session was held the afternoon of the second day, after which the meeting was adjourned and we started home from one of the best meetings ever held in South Carolina. I am looking forward to attending again next year.

A. V. Dowling, Secretary,
Southern Beekeeping States
Federation.

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Cary W. Hartman III

I have just learned from Harry W. Hartman that his father, Cary W. Hartman, secretary-treasurer of the American Honey Producers' League, has been seriously ill for the past six weeks, but on September 29 was on the road to recovery, although not yet able to take care of his correspondence.

V. G. Milum,
Illinois.

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Colorado—November 21

The annual meeting of the Colorado Beekeepers Association, will be held in Denver, the third Tuesday in November (November 21). The program has not been definitely arranged

Chadwick, Winter. O. B. Dalton, state inspector; Nathan Paddock, inspector for the Rusk-Sawyer counties; and County Agent George W. Lord, Hayward, were among those on the tour.

H. C. Brunner,
Wisconsin.

Successful Short Course at Clemson

I had the pleasure of attending a short course on beekeeping, held at Clemson College, S. C., August 23-24.

There were between seventy-five and one hundred present and this meeting was a decided success, especially as it is the first of this kind

THRIFTY QUEENS 35^c ea.
100 for \$30.00
Thrifty Bees are guaranteed to please.
W. J. FOREHAND & SONS
FORT DEPOSIT, ALA.
Breeders Since 1892

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912 AND MARCH 3, 1933.

Of American Bee Journal, published monthly at Hamilton, Illinois, for October 1, 1939.

STATE OF ILLINOIS, } ss.
 County of Hancock, }

Before me, a notary public in and for the state and county aforesaid, personally appeared M. G. Dadant, who, having been duly sworn according to law, deposes and says that he is the business manager of the American Bee Journal and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the name and addresses of the publishers, editors, and business managers are:

Publishers: American Bee Journal, Hamilton, Ill.

Editors: G. H. Cale, Hamilton, Ill., Frank Pellett, Hamilton, Ill., M. G. Dadant, Hamilton, Ill.

Business Managers: M. G. Dadant, Hamilton, Ill., J. C. Dadant, Hamilton, Ill.

2. That the owners are:
 H. C. Dadant, Hamilton, Ill.
 J. C. Dadant, Hamilton, Ill.
 V. M. Dadant, Hamilton, Ill.
 M. G. Dadant, Hamilton, Ill.
 C. S. Dadant, Hamilton, Ill.
 R. A. Grout, Hamilton, Ill.
 L. C. Dadant, Hamilton, Ill.
 R. H. Dadant, Hamilton, Ill.
 Louisa G. Saugier, Hamilton, Ill.

3. That the known bondholders, mortgagees and other security holders owning or holding one per cent or more of the total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

(Signed) M. G. DADANT,

Business Manager American Bee Journal.
 Sworn to and subscribed before me this 10th day of October, 1939.

MINNIE S. KING, Notary Public.
 My commission expires Nov. 18, 1941.

St. Romains "Honey Girl" Apiaries
Hamburg, Louisiana

PACKAGE BEES & QUEENS

Will accept wax for full or part payment of your future orders.

as yet but there will be some special speakers and a good program.

All members are asked to be present and bring some prospective members with them.

L. R. Rice, Secretary.

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New Alabama Officers

The Alabama Beekeepers Association October 4, changed its policy regarding officers elected. In order to increase the interest in the association the following officers were elected:

President, J. T. Haertel, Citronelle, Alabama; First Vice-President, Bagley Hall, Birmingham, Alabama; Second Vice-President, Eugene Cutts, Montgomery, Alabama; Third Vice-President, Slayton Graydon, Greenville, Alabama; Secretary-Treasurer, F. E. Guyton, Auburn, Alabama.

J. M. Robinson,
 Alabama.

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Iowa-Des Moines—November 16-17

Thursday, November 16

10:00 A. M.

Reports—Treasurer, Business Manager, Secretary, Standing Committees, Inspection, Appropriation, Education, Research, State Fair.

Committee Appointments.

President's address—N. I. Lyle, Sheldon.

Inspection Progress in 1939—Howard Shipton, Sioux City.

1:30 P. M.

Plans for 1940 Beekeeping Census—Leslie M. Carl.

How the State Fair Serves the Honey Producing Industry—A. R. Corey, Secretary Des Moines.

Pollen Needs for Broodrearing—Dr. R. L. Parker, Manhattan, Kansas.

Some Ways of Making Increase—G. H. Cale, American Bee Journal, Hamilton, Illinois.

Honey Plant Studies—Frank C. Pellett, Atlantic.

6:30—Banquet.

Friday, November 17

10:00 A. M.

Problems of Chunk Honey Production—L. G. Gartner, Titonka.

Overcoat Winter Protection Cases—Dr. R. L. Parker.

Highest Quality Italian Bees & Queens
Prices are in Line
 Place your order now for next spring delivery.
W. O. GIBBS
 Brookfield, Ga.

Results of Disease Resistance Research—Dr. O. W. Park, Ames.

1:30 P. M.

Improved Stock—F. B. Paddock, Ames.

Speed and Cleanliness in the Honey House—G. H. Cale.

Honey Production Under Drought Conditions—Dr. R. L. Parker.

Space will be available for display of your pet gadget—No entry fee.

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Oregon-Washington Joint Meeting—Walla Walla

A big, joint convention will be held Thursday and Friday November 2 and 3, 1939, in Walla Walla, Washington, with headquarters at Marcus Whitman Hotel.

A full interesting, educational program is being arranged. Such subjects as: Inspection and Plans for the Future, Standardization and Advertising Honey, Legislation, and other subjects of vital importance to the bee industry.

We have three prominent eastern speakers scheduled: H. J. Clay, Washington D. C. Honey Market Reports; M. S. Stone, Superior Honey Co., and E. R. Root, Medina, Ohio.

Thursday evening November 2, 6:30 P. M., in the banquet room of the Marcus Whitman Hotel we will have a grand get-together time and banquet, with after-dinner speakers and entertainment.

We extend a cordial invitation to beekeepers everywhere to meet with us.

H. A. Scullen, Secretary,

Oregon State Beekeepers Assn.

Mrs. Eva Wixom, secretary,

Washington State Beekeepers Assn.

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Massachusetts Meeting

The Middlesex County Beekeepers Association will meet Saturday, November 25, at 7 P. M., at the Agricultural Extension Service Building, 19 Everett Street, Concord, Massachusetts. A delicious "honey way" supper will be served to all attending. Mrs. Walter M. Copeland is president of the Ladies Auxiliary which is responsible for these attractive supper features. Mr. Benjamin R. Hildreth, of E. Holliston, will present a paper on "Bee Rentals."

A. M. Southwick,
 Waban, Mass.

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Rock Island (Ill.) Report

The Rock Island County Beekeepers Association held its annual meeting on Thursday, September 14, at John Mohr's Apiary, Hampton, Illinois, with a very large attendance.

Mr. Pierce Mohr, of Bettendorf, Iowa, was the main speaker at the

meeting. Following this a round table discussion was on with Mr. A. L. Kildow, of Putman, and Mr. C. E. Bowen, of Lyndon. These two men are recognized as way up in bee culture and they surely made it very interesting for us new beekeepers.

The following officers were elected: C. K. Dean, Cordova, Illinois, president; Thos. J. Hayes, Taylor Ridge, vice-president; S. F. Peterson, East Moline, secretary; H. A. Wick-sham, East Moline, treasurer; A. L. Burnett, Rock Island, director; Henry Seitz, Taylor Ridge, director; Peter Hinsberger, East Moline, director.

S. F. Peterson, secretary.

Death of F. B. Terriberry

F. B. Terriberry, long prominent in the affairs of western beekeeping, passed away on September 12. He was formerly state apiarist but because of failing health resigned his official position many years ago. He was retained in the service of the honey producers as secretary of the Association for some time after retiring as state apiarist.

His summers were spent at Midway where he kept his bees, returning to Salt Lake City for the winter months.

—ABJ—

Institute News

The American Honey Institute will publish a list of Who's Who in the American Beekeeping and Honey Industry. Those who send their investment of one dollar or more to the American Honey Institute during 1939 will have their names on this list. Please state whether you desire your name listed under producers, queen breeders, honey packers, specialists, state inspector or other heading. This list will have a wide circulation.

The American Honey Institute is very pleased that so many like the new window streamers and Honey Cookie folder. A day or two after samples were mailed, many rush orders were received by mail and telegram for lots of 500 and 1000. Every beekeeper should have at least one dozen to distribute to stores in his community. Regardless of how small or large your order, the American Honey Institute is pleased to fill it the day it is received.

The streamers can be used the year round. The president of an internationally known business concern writes, "The window streamers are perfect and the color is just right."

The Honey Cookie leaflet is in great demand. Orders ranging from half a dozen to 1000 and more have been received. We have been asked to quote prices on 5 and 10 thousand lots. (This item is being written five days after samples were put in the mail.) Why not enclose a leaflet in a letter to your customers?

Some of the hearty cooperation that the Institute received for National Honey Week came from the Directors of the various State Departments of Markets.

Did you receive a copy of Institute Inklings? If not, please let us know. We want every beekeeper to receive it.

The daily requests for honey recipes from every state in the union is growing each day. The Institute has furnished hundreds of dollars worth of free literature in answering these requests this year.

Do you talk honey every day? Just recently a man who does talk honey visited his fraternity after a football game. When he returned to his home he ordered honey to be sent to these college students and sent a dripless honey container for each table.

One of the coaches in the Big Ten told an Institute representative who talked to him that athletes all over the country are recognizing the value of honey in the diet. The Department of Economic Entomology at this University furnished a supply of honey gratis to the athletic Department.

The Department of Health, Albany, New York is preparing a pamphlet entitled, "Sugarless Days" in which the Institute's "100 Honey Helpings" will be mentioned as a reference.

QUEENS 40c ea.
E. J. Bordelon, Box 33, Moreauville, La.

NEW BINGHAM BEE SMOKER For Over 50 Years

BEEKEEPERS in many lands have been pleased with this most important tool in Beekeeping. Your Bingham Smoker is offered for sale by numerous dealers.

INSIST ON THE BEST
Manufacturers of a complete line of Honey Extractors, one for every requirement. Send for printed matter.

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MERRILL'S ITALIANS
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A card will place your name on our mailing for descriptive circular and prices.
Citronelle Bee Co., Citronelle, Ala.

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Our most successful season.
For even better package bees
and queens in 1940, look to--
DAVIS BROS., COURTLAND, CALIF.

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Save back breaking
work on that big
crop.
Save stirring up your
producing colony.
Write for full de-
tails.

WADE H. FOSTER
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Give a subscription to a mag-
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|---|------------------------|
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MAGAZINE MART
Dept. BJ LA GRANGE, ILL.

"The Sweetest Story Program" a
program of inspirational poetry,
organ music, and honey recipes is
given over station K. L. S., Piedmont,
California from 10:30 to 10:45
Friday mornings.

The American Honey Institute had
the honor and pleasure of a visit
from Mr. Newell E. France of
Platteville, Wisconsin. Mr. and Mrs.
France were in Madison to celebrate
59 years of marriage. Mr. France
formerly was State Bee Inspector of
Wisconsin for more than 25 years.

Among visitors this month were
Mr. Herman Kind of Fleischman's
Yeast and Miss Caroline Dexter of
Practical Home Economics, New
York City, and Mr. D. H. Chambers
and son of Circleville, Ohio.

—ABJ—

A Practical Selling Plan

By Walter H. Hull,
North Carolina.

THE low price of honey in job lots
during the past season will lead
many beekeepers to consider other
ways of disposing of their product.
One way is to sell directly to the
stores. Whether a man should choose
this policy or not will depend largely
on whether he has the attributes of a
successful travelling salesman, chief
among which are a persistent cheer-
fulness and good nature. (Of course
he must also know how to sell, but
that can be learned.)

Many articles formerly handled by
wholesale grocery houses are now
sold in this manner by independent
salesmen, who cover their routes
regularly, carry their stock with
them, delivering in comparatively
small amounts and collecting cash on
the spot. Articles so handled in-
clude candy bars, soft drinks, to-
bacco, bread, mayonnaise, and many
others. It is to this class that the
honey salesman would belong.

This plan of selling puts a greater
number of salesmen on the road. Go
into a store any time and you are
likely to see at least one. You may
see two or three. Sometimes there
are more salesmen than customers
and you might think that the
merchant would object to having so
many of them about. As a matter
of fact, it works to his advantage;
for except when getting the first
order, these independent salesmen
take up very little of the merchant's
time. Each one knows where his goods
are usually kept on the shelves. He
walk in, looks over the stock, notes
what is needed and requires only a
word or a nod from the merchant to
replace the items that have been
sold. If the merchant is busy he does

not even pause in his work, except
to hand out the money for what has
just been delivered.

The benefit to the grocer is that it
involves less bookkeeping, less in-
vestment for stock, less worry about
overstocking, less trouble from com-
plaints (since these salesmen prompt-
ly take back anything that is not
entirely satisfactory), less loss from
shopworn goods, no loss from break-
age in delivery. It all adds up to
more efficient merchandising for him.

No beekeeper using this method
of disposing of his crop need suffer
from a feeling of inferiority, as a
producer often does when he ventures
into the realms of trade with the
goods that he has produced, for this
is a recognized method of selling.
And it is one of the most feasible
for the individual beekeeper, pro-
vided he has the natural aptitude
for it.

Aside from that, only three things
are necessary: (1) Put up a neat and
practical pack. (2) Learn how to
sell. (3) Maintain a steady and
uniform supply. The first two of
these are simple matters of work and
study. The third can be accomplished
by buying honey from other bee-
keepers in your district (so as to get
the same kind of honey) or by carry-
ing over enough of your own stock to
take care of the variation in yield
from year to year.

—ABJ—

Glimpses of New York State And New York Beekeeping

(Continued from page 529)
can foulbrood and succeeded in get-
ting a good appropriation with which
to fight it, there should have appear-
ed on the scene as chief inspector
the present incumbent, A. C. Gould.
Ever since he began, he has been
engaged in area cleanup and is just
now getting to the last counties for
first and second examinations. The
inspections have been so careful and
so thorough that commercial bee-
keepers no longer consider A. F. B.
a menace. They leave it to Gould
to keep them protected. First in-
spection counties that three years
ago showed as high as 50 per cent
infection have now dropped to 2 or
3 per cent, and in the older in-
spected areas the per cent is at the
point of disappearance.

The New York inspection force
goes in the field in groups of four
or five men, and these men do a
thorough job of it. The beekeeper
may want to save his bees. If so,
and if he is insistent, the inspectors
shake the colony and dispose of all
possibilities of reinfection right on
the spot. And they get every bee-
keeper and every colony. Just be-
cause a man is a good commercial
beekeeper and a careful one is no
reason, in Mr. Gould's opinion, for

taking it for granted that he is taking care of his disease situation. He is also entitled to state inspection, and Gould sees that he gets it.

The Dadants have always been proud that theirs is a father and son beekeeping business, but we have nothing on the New York commercial beekeepers. We were pleased and surprised to see many beekeepers' sons on the roll as deputies of Gould, but the numbers of father and son, or father and son-in-law combinations are legion. Here are just a few: Adams and Myers, Luke and Eldredge, the Demuths, Babcocks, Cogshalls, Lanes, Stevens', Pratts, Greulicks, Rulisons, Merwins, Rowes, Frenches, Wahls; and McMuller and Lyman is a case of a beekeeping girl marrying a beekeeping husband, pooling their resources, as it were.

Perhaps the impression has been created that all is rosy with beekeeping in New York. That is hardly the case. There is much waste land that bees cannot use, much in ordinary farm crops that yield no nectar. The fruit regions do yield to fertilization from several thousand colonies of bees every year, but many sections have little fruit. Beekeepers generally have profited there by using smaller apiaries to take advantage of minor as well as major flows. New York beekeepers have succeeded because of (1) somewhat stable, not bumper, crops, (2) a combination of indomitable determination and long continuance in the business, and (3) a liberal use of diversified agriculture along with keeping bees.

New York is a progressive farming state but still has many worn-out farms which need a lot of bringing back to equal our "newer" western fertility. I have mentioned previously that if the county agents were to have their way, probably the thyme of the Catskills would be supplanted by succulent pastures. Therein lies a story, told to us by Dr. Phillips.

There is a belief among the farming people in the British Isles that certain pasture lands are better than others to fatten cattle. The stock are run on the shorter forage usually, but when it comes to fattening, they change to the fattening pastures. When D. B. Johnstone-Wallace was in the employ of the British government he investigated. He found that there was some foundation in fact for the farmers' procedure. While all fields were apparently of the Dutch white clover, some fields truly were better than others. They made a permanent pasture with a thick matting of plants on the ground, crowding out the weeds and conserving the moisture. Johnstone-Wallace also found that this wild white clover, as they call it, could be encouraged to grow with an application of super-

(Please turn to page 553)

WHAT KIND OF PACKAGE IS BEST?

We do not know, so we ship any type that you may want. Write us what you have in mind. Our strain of bees is second to none.

ITALIANS AND CAUCASIANS.

WEAVER APIARIES -:- NAVASOTA, TEXAS

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What the Institute is Actually Doing for Beekeepers

Contacting Home Demonstration Agents, bakers, athletic directors. Appearing on radio programs, including national hookups. Cooperating with both World Fairs. Preparing radio talks and issues of Institute Inklings. Continuing work with universities and colleges. Making contacts between buyers and producers. Answering inquiries concerning honey. Supplying printed matter, honey leaflets and booklets. Campaigning to permeate the medical field.

Help Yourself By Helping the Institute Even \$1.00 will help.

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Write **free** Book on the . . . for **GREAT NORTHWEST**

Thousands of acres of sweet clover and other honey plants that give honey of high yield and fine quality. Favorable localities—Red River Valley, in Minnesota and North Dakota; Milk River Valley; Lower Yellowstone Valley; Valier Project; Kootenay Valley, in Montana and Idaho; and the Pacific Coast Region in Oregon and Washington. ● Beekeepers in this country are increasing their holdings and new beekeepers are establishing themselves along the Great Northern Railway in these states. Diversified farming and livestock are similarly favored by low cost production. ● Write for Free Booklet on beekeeping and farming, opportunities, including Low Homeseekers' Round Trip Excursion Rates.

E. C. LEEDY DEPT. J., GREAT NORTHERN RAILWAY
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CAUCASIANS — ITALIANS. Twenty-five Years' Experience.

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On Westlaco Progresso Highway

Paying 27c a pound for beeswax in exchange for bees and queens. Queen 75c each. 2 lb. pkg. with queen \$2.45. 3 lb. pkg. with queen \$3.15 each. One of our customers has taken 1620 queens on one truck at one time last Spring to North Dakota. We do lots of trading, what have you.

Blue Bonnet Apiaries, R. 1, Box 70, Mercedes, Texas

Crop and Market Report

Compiled by M. G. Dadant

For our October report, we asked reporters to answer the following questions:

1. How is final crop compared to 1938?
2. How is honey moving carlot? retail?
3. What do you recommend for white carlot? ton?
4. What retail price for comb case? 10 lb. extracted? 5 lb. extracted?

Crop Compared to 1938

There has been no appreciable change since our September report on the crop conditions. Practically the only place in the eastern sections where there has been anything like a normal crop is along the Lake Champlain region and perhaps a better crop in some sections of Virginia.

Most of the eastern states, however, are considerably short of last year and in New York and parts of Pennsylvania the crop may be only 30 per cent of the 1938 harvest. In the southeastern states, the average will run better, running from 80 to 85 per cent of last year's crop.

Southern areas are a little less than normal and Texas in various sections will report from 40 to 70 per cent of last year's crop with the best sections in eastern Texas.

Ohio which had a booming crop last year as well as Indiana report respectively 40 to 60 per cent of last year, and even Illinois, which has a better crop will only run 75 per cent, as the central and southern sections are far short.

In Michigan, the crop has been excellent, but probably only 85 per cent of last year, and in Wisconsin the reports vary considerably, some having as much as last year, but the average about 60 per cent.

It is in southern Minnesota and Iowa and along the Missouri Valley, in Nebraska and Kansas, that we see the best reports. Here, the crop is far in excess of last year, and in some cases will run 50 per cent ahead. Northwestern Missouri is similarly located, as is southwestern South Dakota.

The northern sections of Minnesota are far short of last year, running not over 75 per cent. North Dakota and South Dakota similarly will have not much more than half the crop whereas some sections nearly a failure. This includes the Black Hills section. Oklahoma will perhaps have 80 per cent of last year. Colorado is very short, probably not over 30 to 40 per cent of a year ago. In Wyoming, the percentages run a little better, being about 50 per cent.

Montana is another bright spot on the map, the crop being reported as 125 to 150 per cent of last year. In Idaho conditions are spotted, with some reporters giving as much as last year, but most of them only about 60 per cent.

Utah and Nevada are extremely short, not having over 60 per cent of a crop and Washington and Oregon 75 per cent, with California as reported last month, not running over 50 per cent of last year's crop. Arizona and New Mexico are extremely short.

In Canada, the western provinces are far better than the eastern and will have somewhere near last year's crop. However, Manitoba likely will not have over 60 per cent of last year and the eastern provinces 60 to 70 per cent.

All in all, it looks like a short crop compared to 1938 and perhaps may run like 1937 or a little better.

Honey Moving

Reports are that honey was moving slowly in carload lots, but there has been an apparent quickening of demand since the rise of sugar and many manufacturers are anticipating perhaps higher prices and are wanting to buy.

In a retail way, we believe that the demand is better than it has been during the past several years. This is in spite of the very warm weather which has a tendency to slow up honey sales.

Prices Recommended

There is a definite quickening in the suggested price recommendations. In the eastern states, these run approximately 7 cents for carload lots with 7½ to 8 cents for ton lots. The southeastern sections vary in their recommendations but the carload rate will run from 5 to 6 cents, with ton lots commensurately higher.

In the central western states 5 to 5½ cents is recommended for good white honey in carload lots, and in the western area we find still reports of 4½ and 5 cent honey f. o. b. shipping point and perhaps probably quite a lot bought at these figures, cans furnished.

There seems to be a little stiffening in suggestions in the plain states with the recommendations of from 5½ to 6 cents in carload lots, and about ½ cent to 1 cent more in ton lots.

The intermountain states are recommending about the same as the plain states and the west coast has quite a stiffening in honey, owing to the fact that there undoubtedly will not be enough honey along the coast to supply their own local demand let alone ship out.

Retail Prices

If and when the jobbing price for honey increases, there should be a commensurate increase in the retail prices. These do not seem to have developed, although some reporters are getting good prices in a retail way.

We are hopeful, however, that the packer, large and small, will realize the difficulty of replacements at some of the low prices at which they bought honey earlier, and that this will have a steadying influence on the retail prices on honey, bringing some of the extremely low quotations up in line where they should be.

When it comes to carload lots of honey, we are far from recommending a war scare on honey prices. As mentioned in our editorial last month, our prices on honey did not advance at the outbreak of the first World War, in fact, they decreased until the entrance of the United States into the war. Under such circumstances, one would assume that perhaps there might be a tendency for a little easing in the honey market now.

However, the decidedly stimulative effect of a quickening in the industrial situation together with the attitude on the part of many people that it is now time to put in stock before there is a rise, undoubtedly is having an effect on the honey market, as well as the sugar market.

As we probably will have no more honey on hand for 1939 than we can use in the present season and before the 1940 crop becomes available makes the situation look very satisfactory from the point of view of a desirable price on the part of the beekeeper.

WANTED — HONEY

Jewett & Sherman Co.

Milwaukee, Cleveland, Kansas City, Brooklyn

HONEY WANTED

Cars and less than cars
Mail Samples

C. W. AEPPLER CO., Oconomowoc, Wisconsin

Iverson Honey Company (Not Inc.)

Successors to
Edwin H. Guertin, 201 N. Wells St., Chicago
Extracted Honey bought and sold
Reference: First National Bank of Chicago

| SUGGESTED PRICES F. O. B. SHIPPING POINT | Compared to 1938 | Offers on White Extracted | C/L White Extracted | C/L Amber Extracted | C/L No. 1 Comb | 10-Lb. Retail Extracted | 5-Lb. Retail Extracted | 10-Lb. Bulk Comb | 5-Lb. Bulk Comb | 1-Lb. Far Retail | Comb Section Retail | Comb- Case to Grocer |
|---|---------------------|---------------------------------|---------------------------|---------------------------|----------------------|-------------------------------|------------------------------|------------------------|-----------------------|------------------------|---------------------------|----------------------------|
| NEW ENGLAND | 60 | | 7 | 6 | | 1.40 | .75 | | | .25 | .25 | 4.50 |
| NEW YORK | 35 | 6 | 7 | 6 | 3.75 | 1.20 | .65 | | | .20 | .20 | 4.25 |
| NEW JERSEY, DELAWARE, MARYLAND | 40 | | | | | 1.50 | .75 | | | | | |
| WEST VIRGINIA | 60 | | | | | 1.20 | .65 | 1.40 | .75 | .25 | .20 | 3.80 |
| NORTH CAROLINA, SO. CAROLINA | 70 | | | | | | | 1.40 | .75 | .25 | .20 | |
| GEORGIA | 80 | | | | | 1.10 | .60 | 1.30 | .70 | .20 | .20 | |
| FLORIDA | 70 | 5-6 | 6 | 5 | | 1.10 | .60 | | | | | |
| ALABAMA, MISSISSIPPI | 100 | | | | | 1.10 | .60 | 1.40 | .75 | .20 | .20 | 3.75 |
| KENTUCKY, TENNESSEE | 80 | | | | | 1.10 | .60 | 1.50 | .80 | .20 | .20 | 3.60 |
| ARKANSAS, LOUISIANA | 100 | | | | | 1.00 | .55 | 1.20 | .65 | .20 | .20 | |
| TEXAS | 50 | 5 | 6 | 5 | | 1.00 | .55 | 1.20 | .65 | .20 | | |
| NEW MEXICO, ARIZONA | 30 | | 5 | 4½ | | .90 | .50 | 1.10 | .60 | .20 | .20 | |
| PENNSYLVANIA, OHIO | 40 | 5-6 | 6 | 5 | 3.50 | 1.10 | .60 | | | .20 | .20 | |
| MICHIGAN | 85 | 4½-5 | 5-6 | 5 | 3.50 | 1.00 | .55 | | | .20 | .20 | |
| WISCONSIN | 60 | 4½-5 | 5-6 | 5 | 3.25 | 1.00 | .55 | | | .18 | .20 | 3.50 |
| MINNESOTA | 65 | 4½-5 | 5-6 | 5 | 3.25 | 1.00 | .55 | | | .18 | .20 | |
| INDIANA, OHIO | 50 | 5 | 6 | 5 | | 1.10 | .60 | | | .18 | .20 | 3.50 |
| ILLINOIS, IOWA, MISSOURI | 100 | 4½-5½ | 5½-6 | 5 | | 1.10 | .60 | | | .18 | .20 | 3.50 |
| NORTH DAKOTA, SO. DAKOTA | 60 | 4½-5 | 5-6 | 4½ | | 1.00 | .55 | | | .18 | .20 | 3.50 |
| NEBRASKA | 120 | 4½-5½ | 5-6 | 5 | | 1.00 | .55 | | | .18 | .20 | 3.50 |
| KANSAS, OKLAHOMA | 100 | 4½-5 | 5-6 | 5 | | 1.00 | .55 | | | | | |
| WYOMING, COLORADO | 50 | 4½-5 | 5-6 | 4½ | | .90 | .50 | | | | | 3.50 |
| MONTANA | 120 | 4-5½ | 5-6 | 4½ | | .90 | .50 | | | | | |
| IDAHO | 60 | 4-5 | 5-6 | 4½ | | .90 | .50 | | | | | |
| UTAH, NEVADA | 60 | 4-5 | 5-6 | 4½ | | .90 | .50 | | | | | |
| WASHINGTON, OREGON | 80 | 5 | 5½ | 5 | | 1.00 | .60 | | | | | |
| CALIFORNIA | 40 | 4½-5½ | 5-6 | 4½ | | .90 | .50 | | | | | |
| BRITISH COLUMBIA | 100 | | 8 | | | 1.65 | .85 | | | | | |
| ONTARIO and QUEBEC | 70 | 5½-6½ | 6 | | | 1.30 | .70 | | | | | |
| SASKATCHEWAN and ALBERTA | 120 | 5-6½ | 6½-7 | | | 1.30 | .70 | | | | | |
| MANITOBA | 60 | 5-6½ | 6½-7 | | | 1.20 | .65 | | | | | |

The BEEKEEPER'S EXCHANGE

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department, it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers, we require reference of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspector. Conditions should be stated to insure that buyer is fully informed.

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MOUNTAIN STOCK CAUCASIANS. Booking orders now for queens and package bees for 1940 delivery. Bolling Bee Co., Bolling, Alabama.

CARNIOLAN, CAUCASIAN package bees, queens, 1940 delivery. Tillery Brothers, Greenville, Alabama, Rt. 4, Box 132.

FOR SALE—Italian queens 40 cents each. Graydon Bros., Route 2, Greenville, Ala.

CAUCASIAN PACKAGE BEES. Booking orders now for 1940 delivery. P. B. Skinner Bee Co., Greenville, Ala.

FOR STRONGER COLONIES, Bigger Honey Crops and Gentler Bees try our prolific well bred, three-banded Italians. Used for years by leading beekeepers of the U. S. and Canada. Select young laying queens, 50c each; ten, 45c each; twenty or more, 40c each. Prompt deliveries. No disease. We have one of the largest, best equipped queen rearing places in the South. H. C. Short, Fitzpatrick, Ala.

WE ARE CAUCASIAN BEE SPECIALISTS. Write for interesting folder containing prices. **CAUCASIAN APIARIES OF CALIFORNIA, RIFON, CALIF.**

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GOLDEN QUEENS, excellent quality. They please others, will please you. Try 1940 model. Personally reared. O. E. Brown, Rt. 1, Asheboro, N. C.

HONEY FOR SALE

HONEY FOR SALE—We buy and sell all kinds, carloads and less. The John G. Paton Company Inc. 630 Fifth Avenue, New York, N. Y.

FINEST CLOVER EXTRACTED 7c; light amber 6½c; last year's white 6½c. Also fancy comb and No. 1, mixed order, \$3.50 per case. N. B. Querin, Bellevue, Ohio.

FINE NEW CROP clover honey. Reasonable. Edw. Klein, Gurnee, Illinois.

250—10 lb. pails of white sweet clover extracted honey. Interested write. Floyd Rinehart, Grant City, Missouri.

GOOD CLOVER EXTRACTED in 60's 6c; light amber 5½c; dark 5c. No. 1 weight comb, \$3 per case; culls, \$2.25 per case of 24 sections. H. G. Quirin, Bellevue, Ohio.

ALL GRADES white and amber comb, also extracted. F. J. Smith, Castalia, Ohio.

NICE CLOVER HONEY a little basswood mixed in by the bees. Fine taste. 60 lb. can \$4.00. Sample 15c. M. Noack, 3958 Polk St., Chicago, Illinois.

CHOICE WHITE CLOVER HONEY in new 60 pound cans. Fine flavor, good body. 5 case or ton lots. Valley View Apiaries, Savanna, Illinois.

EXTRACTED HONEY—Clover, buckwheat, and amber. 5 to 6½ cents. Clarence Jenks, Holcomb, New York.

CLOVER AND FALL FLOWERS HONEY for sale in 60 pound cans. Sample for the asking. W. S. Earls, New Canton, Ill.

MICHIGAN CLOVER HONEY in new cans and new cases. The Hubbard Apiaries Onsted, Michigan.

FOR SALE—Fancy, well ripened, white sweet clover honey in 60-lb. cans, by the case or carload. Extra good quality. Dadant & Sons, Hamilton, Ill.

NEW CROP comb and extracted honey. Also some 1938 crop at reduced prices. Please state quantity and kind wanted. C. B. Howard, Geneva, N. Y.

EXTRACTED clover honey for sale. Write for prices. Henry Price, Elizabeth, Ill.

WHITE CLOVER in containers to suit. Henry Stewart, Prophetstown, Illinois.

CHOICE EXTRACTED CLOVER HONEY in 60's. R. C. Bish, Successor to Moore Apiaries, Tiffin, Ohio.

FANCY TUPELO HONEY for sale, barrels and 60's. Marks Tupelo Honey Co., Apalachicola, Florida.

COMPLETE LINE comb and bottled honey. Pure clover. Also packed in 5's and 60's. Central Ohio Apiaries, Inc., Millersport, Ohio.

FOR SALE—Fancy Iowa white clover extracted honey. Kalona Honey Co., Kalona, Iowa.

HONEY PACKERS—Write us for prices on carload lots of California and Western honeys. We stock all varieties. HAMILTON & COMPANY, 1360 Produce Street, Los Angeles, California.

ORANGE, Palmetto and Mangrove honey in new sixties. Peter W. Sowinski, Fort Pierce, Florida.

FOR SALE—Northern white extracted and comb honey. M. W. Cousineau, Moorhead, Minn.

WE BUY AND SELL ALL KINDS COMB AND EXTRACTED, CARLOADS AND LESS. H. BLITZ, P. O. BOX 3462, PHILADELPHIA, PA.

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CHOICE Michigan Clover Honey. New 60's. David Running, Filion, Michigan

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HONEY FOR SALE—Any quantity, all varieties. B-Z-B Honey Company, Alhambra, California.

HONEY AND BEESWAX WANTED

CASH FOR YOUR WAX the day received. Write for quotations and shipping tags. Walter Kelley Co., Paducah, Kentucky.

RASPBERRY, sourwood, tupelo, tulip, buckwheat, basswood, orange and other honeys. Need 600 lbs. of each in new sixties. E. A. Meineke, Arlington Heights, Illinois.

ALL GRADES extracted honey wanted. Bee supplies and honey containers for sale. Prairie View Apiaries, 12213 12th Street, Detroit, Michigan.

WANTED—Large quantities of chunk comb in shallow frames; also section honey. Central Ohio Apiaries, Inc., Millersport, Ohio.

WANTED—Carlots honey; also beeswax, any quantity. Mail samples, state quantity and price. Bryant & Cookinham, Inc., Los Angeles, California.

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IN THE MID-WEST it's Inland Poultry Journal, one year 25 cents, three years 50 cents. Printcraft Bldg., Indianapolis, Indiana.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free. 12 cents, stamps. Membership of the Club, including subscription to the paper 10/6. The Apis Club, The Way's End, Foxton, Royston, Herts, England.

MICHIGAN BEEKEEPER is published bi-monthly at 50c a year for all Michigan beekeepers. Sample copy 10c. 406 E. St. Joseph St., Lansing, Michigan.

Glimpses of New York State And New York Beekeeping

(Continued from page 549)

phosphate and potash. New York needed just such a man as that for its pasture problems, and Johnstone-Wallace is now in Ithaca with the Department of Agriculture.* Wild white clover, as well as other newly thriving plants, such as the bird's-foot trefoil may mean much to New York agriculture and beekeeping in the future. It is no wonder that Frank Pellett is trying these plants at his home place at Atlantic, Iowa, along with many others which show more or less promise. Should the big producer, sweet clover, ever fail through changing agriculture or increasing disease, American beekeeping would need much to take its place.

In regard to honey markets, the bugaboo of nearly every honey producer, New York beekeepers have two advantages. First, their proximity to market gives nearly a cent of freight advantage. Second, 10 per cent of the people in the United States live within a hundred miles of a line from Buffalo along the Erie Canal (they call it the Barge Canal) and on down the Hudson to New York City. While their marketing situation becomes acute at times, it is not to be compared with that of the westerner out in the wide open spaces. The fact that this great population has to be fed and that New York has a close-at-hand market for all its farm products plays also into the hands of the beekeepers in enabling them to dispose of their crops. Dissatisfaction with prices? Sure. Co-operative efforts in marketing? Now in progress. Had the New York beekeeper the void in markets that exists farther west, he would have little incentive to carry on generation after generation as the commercial men of New York are doing.

*For further information about the work going on in New York, see the article by D. B. Johnstone-Wallace, "Pasture Improvement and the Beekeeper," in American Bee Journal, June 1939, pp. 282-4.

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American Bee Journal, Hamilton, Illinois



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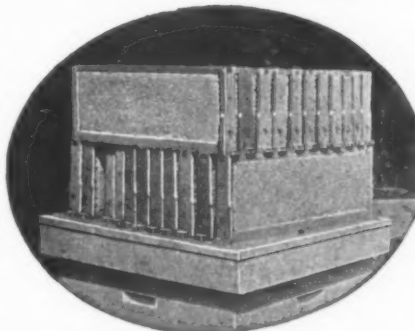
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The Postscript

On two occasions I have observed the mating of the bumblebees. Unlike the honeybee, it does not take place on the wing but upon the flowers where they chance to be feeding. When the act was consummated the male flew away, quite unlike the honeybee where death to the male follows. There was no external evidence afterward that I could see in either the male or female. Since only the females live over winter and no males appear until late in summer it seems safe to assume that the queen mates but once, as is normal with the honeybee.

—ABJ—

When I published the life story of the gold banded paper maker, (*Polistes metricus*), in the book, "Our Backdoor Neighbors," I had carefully observed the life history except the mating. It was not until many years later that opportunity came to observe that. These wasps did not mate upon the wing like the honeybee, but at the nest under the overhanging roof of a small outbuilding.

—ABJ—

Details in the life histories of many insects remain to be supplied since it is often difficult to keep them under observation for a sufficient period. Too often those who do observe isolated facts fail to publish the information where it can be available to those interested.

—ABJ—

Specimens of mountain mint have come to me from so many places with reports of unusual attraction to honeybees that it appears the plant must be of more value than commonly recognized. Carl Killion, Illinois state apiarist, reports that some Illinois beekeepers have secured surplus from it. There are several species common to the eastern states from New England to Florida and west to Iowa and Texas. Some of them grow on very poor soil where few good honey plants are found. Classified as *Koellia* or *Pycnanthemum* I have been unable to locate any firm offering seed except one species listed by Rex D. Pearce, of Merchantville, New Jersey.

—ABJ—

Vernon Gould, of Gorham, Maine, sends an interesting picture of a large clump of *Sacalene* beside his garage door. This plant, *Polygonum sachalinense*, locally called "bamboo" belongs to the buckwheat family and comes from the island of Saghalin near the coast of Eastern Asia. It grows in dense clumps to a height of twelve feet but is not always desirable because of its habit of spreading by underground root stocks making it hard to eradicate once it is well established. Mr. Gould writes that the bees work it for three weeks with such activity as is only equalled on the willows in spring.

—ABJ—

From Raymond Bently, of Townville, Pennsylvania, comes a specimen of another large plant belonging to the same group. It is *Polygonum cuspidatum* which is a vigorous perennial reaching a height of seven feet and which comes from Japan. He reports that the bees work it freely even when buckwheat is at its best. There are many good honey plants in the buckwheat family and some of them are quite unusual as ornamentals.

—ABJ—

From Carl G. Rhapstock, of Plainfield, Wisconsin, comes an account of an unexpected honeyflow when supers at an outyard were filled with light honey of good quality. Not having visited the yard during the flow there was some uncertainty as to the source but forty acres of soybeans nearby was given the credit. Not having seen another such flow he wishes to know how much honey comes from soy beans. We have occasional reports of honey from this source but I have never yet found the bees working to any extent on soy beans. We would appreciate hearing from readers who have secured surplus honey from them. The great increase in acreage of this crop makes it desirable to know under what conditions it can be expected to yield nectar.

The dry cycle shows little sign of giving way to one providing ample moisture as was so fervently hoped last spring. While some localities have had plenty of rain, others have suffered severely from dry weather. W. H. Eastman wrote from Dwight, Kansas, on October 5, that their county seat town was almost out of water and that the river was dry. Wheat had not sprouted and prospects for next season's crop are anything but promising. Other correspondents indicate that conditions are little if any better than in the previous critical seasons. The mid-western area, once known as "great American Desert" shows signs of returning to that condition.

—ABJ—

Peter McIntyre, of Rothesay, Scotland, writes to say that the American Bee Journal has followed him to far places under the tropical sun on many seas for twenty years and to express appreciation of this page of chatter. Among the most pleasing experiences that come from association with a magazine like this are the letters that come from unknown friends. The disciples of beekeeping form a world wide fraternity unlike any other. One who loves bees might go to any part of the world and be sure of friendly greetings wherever other beemen are to be found.

—ABJ—

Many of our readers will be interested in a new bulletin, "Noxious and Other Bad Weeds of Iowa," by R. H. Porter and E. P. Sylvester, recently issued by the extension service of Iowa State College. The numerous illustrations are very helpful in identification of the plants. Address Iowa State College, Ames, Iowa.

—ABJ—

The beehive is the emblem of the state of Utah. The honeybee has long been recognized as the ultimate in industry and it is probable that the thrifty pioneers had this fact in mind in making their selection. It was a sturdy race of men who laid the foundation of the present day prosperity in Utah and the beehive is a very appropriate symbol of industry and thrift.

—ABJ—

I am indebted to Konrad Halle, formerly of Germany but now living in New York for information concerning the kidney vetch, a forage crop grown on poor soils in Europe. It is recognized as a bee plant but its value is difficult to determine since it is usually grown in plots too small to enable the bees to store surplus in quantity.

The flowering period is from May 15 until about July 10 which corresponds to some of the clovers here. Reports which Mr. Halle quotes indicate that the plant is at its best on light and dry soils and that little honey is likely to be secured on heavy soil. Perhaps it may prove of value in suitable locations in this country.

—ABJ—

N. E. France, of Platteville, Wisconsin, is among the last of the group of prominent beemen of an earlier day. Mr. France was very active in the affairs of the old National Beekeepers' Association and his name was familiar to every reader of the bee magazines of thirty years ago. Since so many of the old timers have already passed beyond our reach it would seem to be very appropriate to offer some token of recognition to Mr. France as a reminder that, although no longer active, he is not forgotten. Has any reader a suggestion?

—ABJ—

After a summer with the bees in the experimental apiary and the plants in the test plots it requires some adjustment to get back into the routine of the office. There is a bit of regret for the dormant season that winter brings and something of impatience for the coming of spring when the bees and flowers will be calling once more.

FRANK C. PELLETT.